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TWO LINE *Editorials*

metals — 2 line editorials .....

The present Russian regime has been wrong about a lot of things, but the whole outside world will agree 100 per cent with their recently announced views regarding Stalin.

• • •

Who says the present administration isn't economical and frugal? President Eisenhower asked for only $4,900,000,000 for foreign aid when he might easily have asked for an even $5,000,000,000.

• • •

A French politician was fined 500,000 francs for slandering an opponent. But if a candidate is not permitted to slander his opponents, how can he have any fun in a campaign?

• • •

The absurdity of the official suggestion that "old age" begins at the age of 62 will be immediately apparent to everybody over 61.

• • •

A British scientist says the Sahara Desert was formerly covered by the Mediterranean Sea, but that "this was millions of years ago." Or, to use a slang phrase, "long time no sea."

• • •

A new piece of farm machinery which plows, harrows, seeds, fumigates and fertilizes in one operation is said by its maker to "do all a farmer's work." Everything except going to town to get his government check.

Washington Report

April 10, 1956

COPPER consumers were cheered last month by a report by the Copper Division of the Business and Defense Services Administration that supply and demand for the red metal will be in approximate balance during the second quarter of this year. In another development, the Government served notice on consumers that regardless of how serious the copper shortage might become, they could not rely on the release of the metal from the strategic stockpile to alleviate such scarcities.

In its winter report, issued March 23, the Copper Division indicated a supply-demand balance will be achieved in the second quarter, barring work stoppages and other unforeseen developments. The report anticipated that refined copper production from domestic ores will increase substantially in the second quarter due primarily to new output at the big San Manuel Mine in Arizona. Demand is expected to continue strong, the report said, since a slackening in automobile production may be offset by heavy requirements of expanding power and communication facilities, increased industrial and commercial construction, and greater production in the durable equipment industries.

Federal Aid to Consumers

Reporting on Federal steps to aid the copper supply situation, William A. Meissner, Jr., deputy director of the Copper Division, noted that from the fourth quarter of 1954 through the first quarter of 1956, about 84,000 short tons of U. S. refined copper had been made available to private industry by diversion from delivery to the Government.

Speaking before members of the Copper and Brass Warehouse Association at the group's annual meeting in Phoenix, Ariz., Mr. Meissner said the stockpile is not a bank where deposits of refined copper can be made when not needed and withdrawn at will when business conditions create unprecedented demand. Taking issue with recent association requests that the Government relieve the copper shortage by releasing from the stockpile the 100,000 tons purchased from Chile in the early part of 1954, Mr. Meissner emphasized that the metal was required because the stockpile at that time was well below the objective.

The Government in March also entered the market to make its regular monthly purchases of lead and zinc for the stockpile. Domestic producers were requested to submit their offers of both metals by noon, March 28, with delivery of metals to be completed by May 15. It is believed that tenders submitted to supply both lead and zinc were for tonnages substantially larger than they have been in recent other months, reflecting the more moderate open market demand for the metals.

More Nickel Diverted

More nickel was diverted from the national stockpile to private consumers during the month in review. On March 22, the Office of Defense Mobilization authorized the diversion to industry in the second quarter of 1956 of 18,000,000 pounds of nickel from scheduled shipment to the Government during that period. A major portion to be diverted will be premium-priced ferronickel and nickel ingots. In addition, customary sales to industry of 500,000 pounds a month of nickel oxide from Nicaro production will be continued. Early in April, the ODM, in an unprecedented move, increased the planned second quarter diversion by an additional 1,000,000 pounds, bringing the total for the period to 20,500,000 pounds.

An ODM spokesman said the move was taken to ease the supply of metal for non-defense consumers. He pointed out that such a large percentage of the originally planned 19,500,000-pound diversion was being taken up by priority defense contracts that non-defense consumers weren't helped much by the diversion.

Stockpile Objectives

Late in March the ODM disclosed that, as of December 31, 1955, stockpile objectives were valued at $11,200,000,000, consisting of minimum objectives of $6,900,000,000, plus an additional quantity constituting long-term objectives for metals and minerals valued at $4,300,000,000. On the same date, materials valued at $6,300,000,000 were on hand towards these objectives.

This valuation represented an increase of $610,000,000 over the valuation of June 30, 1955. Deliveries to the stockpile amounted to $167,000,000 during the six months covered by the ODM report. The remaining increase of $443,000,000 in the valuation is due largely to price increases of stockpile materials between the middle and the end of the year, less deductions for removal of some materials from the stockpile list.

Metal Expansion Aid

The ODM also announced early in April that necessity certificate applications which were on file when 25 expansion goals were closed September 29, 1955, will now be considered for certification within the term of the goal involved. The 25 goals which involve certain segments of one goal, had been suspended on August 11 pending a review of the need for further defense expansion.

Approximately 85 applications will receive consideration as a result of ODM's announcement. These involve proposed expansions estimated to cost $139,000,000. The ruling applies to the following expansion goals: antimony, bauxite, cobalt, cryolite, synthetic, electrolytic tin plate, grain-oriented steel sheets, grey iron casting, iron ore, ore carriers, Great Lakes, ocean-going, special manufacturing facilities, metal cans, and titanium metal.

Earlier, on March 21, the Bureau of Mines reported that columbium and tantalum, which have been scarce in the U. S. since before the Korean conflict, now are plentiful enough to meet all known civilian uses.

Metal Export Quotas

Second quarter export quotas for copper raw materials, nickel and nickel products and selenium were an-

(Continued on page 19)

NICKEL MARKET ENLARGEMENT DEPENDS ON STEADY PRICE, REASONABLE TO BOTH PRODUCERS, USERS

Current World Shortage Reflects Rearmament and Stockpile Programs Plus Large Civilian Needs; Metal Faces Competition From Substitute Materials

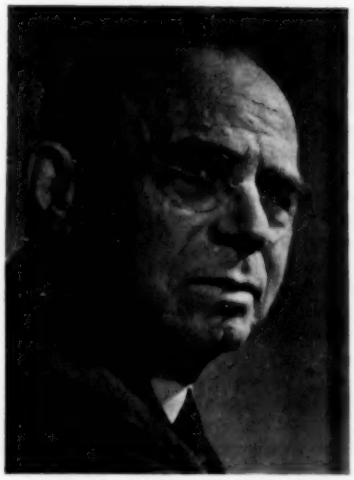
By DR. JOHN F. THOMPSON, Chairman, International Nickel Company of Canada, Ltd.

WHEN I entered the mining business some fifty years ago, the average mining company felt it had fulfilled its function when it produced finished metals in good quality and either offered them for sale on established open markets, such as the London Metal Exchange, or put them on the shelf and waited for customers to come around. With the commercial development of new metals, there had to be a complete change of view on this matter. Since nickel is one of these metals, perhaps the earliest element to fit into this category, I shall use it throughout as an illustration.

Back in 1883, when the Canadian Pacific was being cut through Northern Ontario, a sulphide ore deposit was discovered. Thinking that it was a rich copper deposit, the original discoverers were filled with enthusiasm. The shipment of the first material to the Orford Copper Company, later to become part of the International Nickel Company, rapidly brought to light that, although there was copper in the ore, there was something else, soon determined to be nickel, which completely destroyed the value of the ore as a copper ore, and left the Sudbury Basin as simply an enormous opportunity for its owners to go broke trying to work it. The Sudbury Basin at that moment was valueless.

The Orford Process

Not only was there no established market for this nickel, but there was no known satisfactory method which would separate the nickel from the copper, thus enabling the operators to produce the valuable copper. They first tried the old method of chemical solution. They then, by one of those combinations of hard work, some technical knowledge and luck, discovered that by melting the matte with a mixture of coke and sodium



DR. JOHN F. THOMPSON

sulphate, they could produce a metal which separated on cooling into two layers, the one being rich in copper, the other rich in nickel. By this means was discovered the so-called Orford Process, which for some fifty years remained probably the most efficient, economical and rapid method of separating the nickel and copper in copper-nickel ores.

However, our predecessors in the nickel businness had courage, vision and determination, or what perhaps might be more accurately described as plain mule-headed stubbornness, and they proceeded to go out and find where there were markets for nickel beyond the then limited uses in nickel silver and electroplating. Fortunately for them, it had been determined that nickel gave certain properties to steel which made the resulting steel useful in armor plate, big guns and projectiles. Thus the original impetus to the nickel business was given by these uses.

Some twenty years later the automobile, with its use of nickel steel, created a then small but growing market for the metal. But up to the First World War, nickel remained largely an armament metal, and the world statistics of consumption were overwhelmingly affected according to whether the various countries of the world were engaged in the construction of naval fleets. This continued until after the end of the First World War, during which time the consumption of nickel reached a then all-time high. The ending of the war, plus the Washington Naval Conference, destroyed this market — destroyed it to such an extent that for eighteen months there was no nickel ore raised in the Sudbury Basin and the Sudbury Basin became almost as valueless as it had been in the early 80's when the presence of nickel indicated that the Basin had no future as a copper mining center.

Thus in 1922 the nickel industry was faced with a desperate problem — we had what we then knew were large and potentially very valuable deposits. We had the belief that a market could be developed. We were satisfied that we had an obligation to convert the nickel business from an armament specialty to a world-wide peace-time industry and, at that time, we started to do it.

Commercial Development

Fortunately, however, Monel metal had been discovered in 1905, and in 1906 we had embarked on a program of learning the properties of this high-nickel copper alloy, working out its fabrication, and then, with full confidence in our ability to create a market, started on its commercial development. During those fifteen to sixteen years, we had spent a great deal of time, a great deal of effort, and a great deal of money in unprofitably pursuing this development. But while these years were unprofitable financially, they were later to pay large dividends, because during this time we were able to experiment

Excerpts of address before The Empire Club of Canada, Toronto, Ont., Canada, April 5, 1956.

and work out many of the things which had to be discovered and mastered, before we were able to successfully make a market for Monel, or be even able to produce the metal at all. And, more important than these, during this time, we were able to build up a group of men well skilled in all the different arts of making the metal, selling the metal, finding and working with customers, advertising and so forth — the foundation of our later nickel development.

Naturally, Monel metal was first in our thoughts. We knew how to manufacture it but we had no facilities of our own to do so. We had learned through experience that we could not successfully develop a market depending on others to do our rolling and fabrication for us. We had a market so small that it apparently did not justify the building of a rolling mill, but the Management and Directors had sufficient courage to determine on an expenditure of over $3,500,000 at a time when the Company's resources in quick cash and securities were only about two-thirds of that amount, feeling confident that given a mill which would enable us to produce the forms of rolled products needed, we could go out and establish a profitable market for them.

Simultaneously with this, we pushed ahead on a similar activity designed to remove nickel from the armament class or a material used in comparatively small amounts in nickel silver, plating, coinage and nickel steel into a metal of universal application. Starting from this basis, and with, as I said before, the Sudbury Basin shut down for eighteen months, we proceeded to build up a rounded organization covering mining, smelting, refining, research, technical field service and, most importantly, a wide distribution system to dispose of our various products, with the result that in 1929 we sold more nickel than had ever been sold in the world before in any one year, even at the peak of the First World War. For that year we estimated how much of this nickel went into armament or war purposes. There were naturally some differences of opinion as to where the line should be drawn between war and non-war uses and, on that basis, the estimates differ. The lowest estimate was one-half of one per cent — the highest estimate was five per cent — and the nickel business had become an industry rather than a war-time specialty.

From that point, we have continued to expand the uses for nickel so that today the world is short of this product because we again have a rearmament and stockpile demand superimposed on the peace-time demands. This has required our doing many things. I would like to take them up, not in their order of importance, because there is no order of importance. Each one of them is an essential link in the chain. Perhaps in orderly progression they might be considered as follows:

The first is the exploration for new ore deposits. The old traditional mining method was to find a deposit, mine it as quickly as possible in the most profitable manner possible and, when the mines were exhausted, move on, leaving a ghost town, of which there are many on this Continent. But we are not in the business of making ghost towns; we are in the business of running a continuing industry.

Obligations of Mining Firm

The management of a modern mining company has a number of obligations. First they have the primary obligation to the country in which the mines are located. Nature has put a valuable material underground and that must be handled in a way which

satisfies the national interests. Secondly, management has an obligation to its employees to see that they can have the opportunity to continue to work profitably in this industry throughout their lives and their children's lives. Thirdly, it certainly has an obligation to the customers to see that they receive the materials they want in the forms they want and that they can buy them in places located to suit their needs.

Finally, we have the sometimes apparently forgotten group, the stockholders who are risking their money in the enterprise and who, if the enterprise is to continue, must be satisfied with the results of the stewardship. At times these interests apparently come in conflict. That they actually come in conflict, I cannot agree. There are, however, facts which must be recognized, which through the interbalance of forces control many of a company's actions.

Exploration

Taking the question of exploration, every time you mine a pound of ore, you have removed something for good and all and, to the extent of that one pound, a mine or a mining district has moved towards its final extinction. But there are many people whose lives and fortunes are invested in having a continuing operation. From the local standpoint, it is vital, from the national standpoint, it is essential that the lives of mines be conserved over a long, regular period; that towns not become ghost towns; that the mines continue to pay the wages and taxes, support the schools and hospitals, and do all those things which we all regard as one of the functions of a modern mining company.

But when you hunt for ore, you have to hunt for ore where it is located, and with a large developing market, ore is only valuable if it is found in large quantities.

Naturally, we prefer to find this ore somewhere in Canada and have extended our search to all parts of the country. But with the potentialities of the nickel market, it is necessary to extend the search further to other places where geology makes it possible that nickel deposits may be found. As a result, we must extend our exploration to all parts of the world where we feel that nickel is geologically possible and there should be a recognition that if a large, profitable nickel deposit is discovered, somewhere outside of Canada, Canadians, I feel, should be pleased with this discovery, not feeling that it is a competitor of Canadian mines, but feeling that it is an insurance that, as the world's demand for metals continues to grow, this additional source of supply only buttresses and supports the continuing life of the established Canadian deposits and of the towns and industries which are dependent on them.

But after the ore has been found, many steps must be taken before the metal is in final form for the market. This is of course inseparable from any metallurgical development and, since the emphasis of my talk today is essentially on the final step of this operation — the marketing — suffice it to say that our processes, following the Orford Process, which I described a short time ago, have changed, modified and improved while our methods of mining, which started originally as open pit quarrying, have now developed to five different kinds of underground mining, ranging through blast hole mining, shrinkage stopes, square set mining and panel caving.

Continuously Improve Processes

These improvements and developments of processes go on continuously. This is essential for two reasons, the first a defensive reason, that is: costs must be reduced if we are to be able, over a period of time, to meet the general increase in cost which inflation continues to bring us. Second, constructively, so as to make available and profitable the lower grade ores and those ores which today are not profitable, but which, with new and improved processes can often be worked even more profitably than the older richer deposits. Thirdly, since the nickel deposits are not only nickel deposits, but also deposits containing copper and precious metals, especially the platinum metals, it is necessary to work out processes which will recover every possible ounce of value from each carload which is mined. So that, at present, having started originally as a company which produced nickel and copper, we now produce a variety of some fourteen metals and elements, thus both profitably working the ore and generally adding to the mineral resources of Canada.

But to do this takes both long periods of time and large amounts of money. As an example, we have just started to produce iron ore from the first unit of an iron ore recovery plant near Copper Cliff. The first shipments have already been made to Canadian steel works. Iron has, of course, been since the beginning, a recognized element in the Sudbury ores. Various efforts have been made in the past to convert it into some sort of commercial form, but these have always been unsuccessful. Our present endeavor which has now resulted in an operation delivering high-grade iron ore — ore of the highest grade on this Continent — started almost exactly ten years ago. During those ten years we have had a constant experience of steady experimentation and also of the steady spending of money and at the end of that period, while we have produced a new, very valuable product from Canadian ores, we have also involved ourselves in a large capital expenditure, so that the first unit of

(Continued on page 11)

TREMENDOUS FUTURE LIKELY FOR ALUMINUM; PRICES COMPARATIVELY STABLE, CONSUMPTION INCREASING

60,000-Ton Hike in Domestic Output Seen in 1956 With Capacity Boosted 137,000 Tons; 1960 Total Supply for U. S. Use May Reach 3,300,000 Lbs.

By A. NICHAMIN, Federated Metals Division, American Smelting and Refining Company

IT IS ALMOST anomalous to speak about the history of the aluminum industry because it has moved so rapidly that almost everything about it is current and blooming. Actually, it is a pleasure for me to talk about aluminum because it is so singularly different from the other metals. On the basis of ores alone is has a tremendous future, the price has been comparatively stable and its alloys are growing in usefulness in number and in quality.

As a matter of fact, while the current uses are increasing at a breathtaking rate, there are entire new industrial applications that are waiting only for expanded production facilities in order to develop. Certainly the growth of aluminum has not been without pain and fatigue and which still will be for some time to come. Actually, for all its unbelievable accomplishments this industry is still in its infancy so far as its developments are concerned. Aluminum has no historic background prior to the nineteenth century because until the advent of electrical power there was no economical way to make the metal available to consumers. Today, however, there are 16 countries in the free world producing aluminum with about 25 separate companies operating. The major countries producing aluminum are United States, Canada, Norway, Germany, Austria, Italy, Britain and Japan. All except Norway, Austria and Canada require substantially all of their production for consumption in their home markets. The other three I mentioned are normally exporters to a smaller or greater degree. However, for your information, Canada exports about 75 per cent of the total primary aluminum in international trade.

Aluminum Progress

I must tell you from the outset that I am enthusiastically optimistic about the growth of aluminum for the future, and I will try to substantiate my feeling through a few examples and figures.

The outlook so far as I am concerned is one of substantial and continued growth. The amount of capital that has been expended and the rapidity with which this new production capacity has been absorbed, with some exceptions, can only bear out my feeling.

More Competitive Market

The primary producers' field is becoming much more competitive with four producers in the field at the present time and at least two more who will be coming in shortly, and others are contemplated to provide additional production. For instance, during 1956 it is expected that the domestic increase in production will be at the rate of about 60,000 tons over 1955 and the capacity will be 137,000 tons greater than last year. Because of the power shortage in Canada the imports instead of being at the rate of 290,000 tons, as was originally planned, will probably go down to 260,000 tons, but even this will be an increase of over 65,000 tons compared to 1955.

By 1960 it is estimated that the total aluminum supply which includes a tentative figure of 400,000 tons of imported prime pig and 600,000 tons of scrap recovery will give United States, with its own estimated primary production of approximately 2,300,000 tons, the substantial figure of 3,300,000 tons for United States consumption. Now while the production of wrought and cast products as well as for aluminum for destructive purposes is estimated at 3,130,000 tons, this indicated excess supply may well be taken up by stockpile. Actually 550,000 tons will be owed to the stockpile as of July 1, 1956 because of the deferral of shipments during 1955 and the first half of 1956.

There are plenty of reasons which could be given for the expansion of the aluminum industry and the bright outlook and competition ahead; however, one of the most important ones is the terrific drive for development of new uses and greater sales which seems to fascinate and spur permanently everyone associated with aluminum no matter how distantly. The expansion in the uses of aluminum extend from nails to entire buildings. Speaking of buildings there is the use of siding, roofing, exterior walls, floors, piping, inside wiring, spandrels, and countless items of building hardware and items such as furniture and storm windows which have swept the market. The tremendous expansion in foil consumption which can be rolled as thin as 2½ ten thousands has invaded industry and consumer fields alike. Other uses to which aluminum has been put are highway guard rails, signs and markers, large scale usage of irrigation pipe and countless parts for farm equipment.

Expanding Uses

The use of cable and aluminum towers for power transmission is expanding. In transportation, of course, the surface has just been scratched. Buses, trucks, freight and passenger rail cars, ladders, wheels, wheelbarrows, and the new use of trailers for the piggy back setups. In this connection, there were 78,000 trailers manufactured in 1955 and it is expected that there will be up to 100,000 produced in 1956 and annually thereafter to 1960. This figure even exceeds the 1953 figure when approximately 90,000 trailers were produced. This application alone will consume 28,000 tons of aluminum per year. Consider then the expanded use of aluminum for automobile and truck parts when you understand that there is a strong indication that the average pounds of aluminum on an automobile will rise from about 37 pounds today to 55-65 pounds per car by 1960 at the latest. Multiply this by the 8,000,000 cars and trucks produced last year and you can visualize the tonnage that this industry alone will consume with the

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Excepts of address at 43rd annual convention of National Association of Waste Material Dealers, New York City, March 12, 1956.

Tremendous Future Likely For Aluminum

(Continued from page 10)

good possibility there will be larger production by 1960.

What about the household utensils and general appliance industry? My friends, the longer one speaks about it the more enthusiastic one becomes. It is only fair for you to keep in mind that the expansion in the use of aluminum was concurrent with the reduction in the percentage of aluminum consumed in defense production. Its growth is on a consumer and industrial basis. The tonnage of shipbuilding is expected to increase markedly for the United States freight and passenger traffic, and aluminum is moving in to a greater extent as a desirable and specified component. Some of the reasons for the clamor for more and more aluminum are the things that aluminum can do.

Aluminum is an excellent reflector of light and reflects heat which makes it highly desirable for reducing under roof temperatures, also for portable heaters and makes it an excellent insulating material. It is also an excellent conductor of heat which makes it perfect for one of its more important uses — kitchen utensils.

Secondary Aluminum Role

So far as the future of aluminum is concerned, obviously the smelter or secondary metal field is of major importance, constituting by and large about 30 per cent by weight of the primary pig production, or 20 per cent of the total metal supply when imported pig is included. No one can gainsay the importance of the scrap and aluminum smelter industry. In the first place, this material can be converted readily into high quality metal and, secondly, it acts as a substantial cushion in the industry. This phase of the industry is large and growing. For instance, in 1951 with 837,000 tons of prime production the total recovered scrap generated was 293,000 tons. The total supply for that year which would include all imports, mainly from Canada, was 1,270,000 tons.

During 1955 the comparable figures were 1,566,000 tons of domestic prime; 405,000 tons total recovered scrap generated, and total supply 2,135,000 tons. This figure in 1960 is estimated to reach 2,310,000 tons of domestic prime; 600,000 tons of scrap and a total supply estimated at 3,300,000 tons. As you can see, the rate of growth of the aluminum industry since 1946 has been incredible and has confounded the prophets who predicted aluminum growth during 1951. Among the very respected and respectable publications that reported estimates made by the aluminum industry, one quoted them as saying that by 1961 they expected to more than double the 1951 production. The record? Well the figures I just gave you indicate a domestic doubling of prime by the end of 1955, an increase in scrap generated of 33 per cent, and by 1960 domestic prime will be almost three times the volume of 1951, and scrap will have doubled. In 1952 a report by the President's Material Policy Commission stated that between 1950 and 1975 the demand for primary aluminum in the United States would quintuple. This is a little better estimate but, of course, its is based on the fact that the program for aluminum expansion had begun since 1951. Based on the figures I gave you, by 1960 the estimate predicated on known expansion projection could be 3½ times that of 1950.

May I leave you with one additional thought. While aluminum is not without strong competition in titanium, plastics, stainless steel and magnesium, I believe that its qualities are more than competitive. Its reasonable cost of production, and above all, its tremendous reservoir of source of ore, emphasize that the horizon of aluminum's future still remains limitless and exciting.

Steady Price Essential For Nickel Market Enlargement

(Continued from page 9)

this plant has cost some $19,000,000 with other units still to be built. However, the result has been an addition to Canada's wealth and an additional source of income to the Nickel Company.

As I said a moment ago, all of these new developments called for large investments of capital. For example, since the beginning of our major program of mine development and expansion during World War II, the Company's capital expenditures have aggregated $220,000,000, and we are now spending an average of about $23,000,000 a year. Capital cost of construction of new plants has now reached the point where a plant, such as the U. S. Government plant in Cuba rated at 50,000,000 pounds per year capacity, will cost, when it is complete, probably a total of $90,000,000.

All of these expenditures are essential if we are to continue to do our share in supplying the world with nickel and if we are to keep our costs reasonable in view of the inflation which has taken place with the resulting great rises in the cost of labor, power, supplies, etc.

And now we come to one of the most important considerations in developing the market. This is the establishing of prices. Because of the small number of nickel producers, it has been assumed that competition was at a minimum. Actually, nickel competes with many things. It is not direct competition of the nickel of one producer with the nickel of other producers which is disturbing, but the competition of nickel - containing products with all the other available substitute materials. In one place, nickel products compete with plastics or wood, in another case with the bronzes and rasses, in still others with aluminum.

In order for some companies to change to a nickel - containing product from a product containing no nickel, it is often necessary for them to make expensive and complicated changes in machinery and process. In many cases, they must invest large amounts of capital in order to make the changes. Beyond this, they have to advertise more extensively, more expensively and, in many instances, they have to risk their whole company's name on the use of a nickel alloy. They cannot afford to do this if they are subject to the whims of rapid changes in nickel prices and it is only by establishing a price and by sticking to it long enough to convince them that this is an established policy, that we can induce them to make the expensive changes which are necessary and to take the commercial risks.

The stability of price, which has been a feature of the nickel industry, is based on this firm belief that only by such a policy could the nickel market be properly expanded. Inflation has forced the price up to its present levels. Whether it will force it further, we do not know.

What the results of economic and technological changes will be, we do not know. For many years, technological advance, plus the savings in overhead, due to increase in production were sufficient to enable the price to be kept steady. I can only restate that a steady price, recognized as reasonable both by producers and consumers, is essential to the enlargement of the nickel market.

U. K. COPPER HITS NEW HIGH ON ANNOUNCEMENT OF ANACONDA LME PRICING FORMULA, THEN PLUMMETS

Continued Operation of Texas Smelter Likely to Steady Tin Market; Stockpile Purchases by U. S. Seen Supporting Lead and Zinc Prices

April 9, 1956

WHATEVER else may be said about the copper market — and a great deal of a not very complimentary kind has been said about it in the last year or two — it certainly cannot be described as dull. During the past month the price on the London Metal Exchange established yet another high record, the settlement price on March 19 being no less than £437 per ton. Since then an easier tone has supervened and prices have ruled below £400 for the last couple of weeks and, thanks to an appreciable rise in stocks in London Metal Exchange warehouses, the backwardation has shrunk to quite moderate proportions.

Two developments of particular interest during the past month have been reselling of some copper by U. K. consumers which resulted in electrolytic copper wirebars being put on Metal Exchange warrants for the first time since trading was resumed after the war, thus making the L. M. E. price a reasonable reflection of the wirebar quotation, while the other development was the announcement that Anaconda and Kennecott are to sell the copper from their Chilean mines in the United States on the basis of Metal Exchange prices.

This latter arrangement has naturally caused much satisfaction in market circles here as it constitutes the biggest boost to the prestige of the Exchange that it has had since the war. Nobody is under any illusions as to why the step was taken or who originated it, but the fact remains that a considerably larger proportion of the world's output is now being sold on the basis of L. M. E. prices than was previously the case. Moreover, this may well result in increased American interest in trading on the Exchange.

By L. H. TARRING
London, England

The immediate effect of this news was to send prices up to the record figure mentioned above, but subsequently it undoubtedly played a part in the easier trend in prices. While at first view this may seem a little odd, it is not really strange as one of the major troubles of the copper market for some time has been the multiplicity of price levels and the comparatively limited quantities which were available on the open market. As a result the latter has been very susceptible to buying pressure of only moderate dimensions. The more copper that is traded on the Metal Exchange, or on the basis of its prices (for this tends to promote hedging and other activities on the Exchange) the more resistant it is likely to be to unduly wide price fluctuations in the short term.

It is worth noting that the record high price was achieved at a time when U. K. demand for copper was at a particularly low ebb. Indeed, demand was almost a minus factor since some consumers were reselling copper as their immediate requirements appeared to be more than covered by the quantities they had arranged under period pricing contracts.

While the latest news of industry in this country is a trifle more hopeful again, there is no doubt that the credit squeeze has powerfully affected some industries which consume a good deal of copper and for a time at any rate, consumption is believed to have dropped by something like 15 to 20 per cent. The outlook is currently clouded by the impending Budget as the Chancellor of the Exchequer has reaffirmed his determination to

U. K. COPPER STATISTICS

Stocks of blister copper at the end of January were down at 18,366 tons compared with 19,570 tons at the end of December. Stocks of refined copper, on the other hand, were up at 61,011 tons (34,604 tons held by consumers and 1,814 tons in London Metal Exchange approved warehouses) compared with 56,627 tons at the end of December. Imports into the U. K. during January were 22,567 tons and production during the month was 12,140 tons of primary reffined and 8,494 tons of secondary.

Consumption, full details of which are given below, was 59,028 tons compared with 52,724 tons in January 1955 reports the British Bureau of Non-Ferrous Metal Statistics.

	Jan 1956	Jan. 1955
UNALLOYED COPPER PRODUCTS		
Wire (1)	22,791	18,772r
Rods, Bars & Sections	1,723	1,315r
Sheet, Strip & Plate	4,967	5,123
Tubes	4,436	3,896
Castings & Misc.	650	500
ALLOYED COPPER PRODUCTS		
Wire	1,678	1,544
Rods, Bars & Sections	12,802	12,769
Sheet, Strip & Plate	11,081	11,281
Tubes	2,063	1,639
Castings & Misc.	6,733	5,844r
Copper Sulphate	4,627	3,494
TOTAL ALL PRODUCTS	73,551	66,177r
Copper content of output	59,028	62,724r
Consumption of refined copper (2)	45,676	41,215r
Consumption of copper & alloy scrap (3) (copper content	13,352	11,509r

Note: (1) Consumption of H. C. copper and cadmium copper wire rods for wire and production of wire rods for export. (2) Virgin and secondary refined copper. (3) Consumption of copper in scrap is obtained by the difference between copper content of output and consumption of refined copper, and should be considered over a period since monthly figures of scrap consumption are affected by variations in the amount of work in progress. r—revised.

AVERAGE BRITISH PRICES FOR COPPER, TIN, LEAD, ZINC

(Per Long Ton)

Mean of Bid and Asked Cash Quotation at Close of Morning Session on London Metal Exchange

	COPPER			TIN			LEAD		ZINC	
	Cash	3 Months	Settlement	Cash	3 Months	Settlement	Current Month	3rd Following	Current Month	3rd Following
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1954 Averages ..	248 17 11	239 17 7	249 0 11	719 8 11	709 17 7	720 6 7	98 8 12	94 7 4	78 5 4	77 16 11
1955 Averages ..	351 14 11	341 0 3	352 5 6	740 2 12	736 12 11	740 12 8	105 17 3	105 9 6	90 13 4	89 12 3
1956										
January	392 4 7	378 13 10	392 14 1	814 4 4	788 13 2	815 0 11	118 11 4	116 10 0	100 16 9	97 13 2
February	403 15 11	389 2 10	404 5 10	805 10 6	774 0 11	807 3 4	119 7 6	115 8 5	100 8 1	96 7 6
March	419 11 8	410 7 7	420 0 6	805 10 9	780 9 6	807 8 7	121 2 6	118 13 11	101 11 2	98 13 11

check inflation and industry is somewhat uneasy as to whether there may be some further shocks in store for it. However, business has now pretty well adjusted it self to the autumn restrictions on credit and hire purchase and it is to be hoped that the worst may now have been seen.

Obviously a great deal will continue to depend on the course of events in the United States as far as the overall market position is concerned, as ever since the turn of the year it has been mainly the strength of American demand that has given the international copper market such a firm tone and kept it so short of supplies. The latest arrangements may mean that more Chilean copper will be going to America and less to Europe and until the position is clarified the outlook may remain obscure. Consumers generally are still hopeful of a lower price level emerging but few people are prepared any longer to make prophecies regarding the copper price.

Marked Change In Tin

Quite a marked change has come over the tin market there during the past month. The stringency in spot supplies which prevailed a few weeks ago, and which resulted in very high premiums being paid for cash tin had the normal effect of attracting supplies to the London market and easing the tight situation.

At the same time a report by President Eisenhower that seemed to be against the continuation of the Texas City smelter after June 30 focussed attention on the top heavy supply position which might develop later in the year, and the general price level declined. Subsequently, of course, further reports suggested that the Texas smelter will probably be kept in operation until the beginning of next year and this may well have a steadying effect on the market, as it is assumed that if the smelter continues operating its output will be stockpiled as has been done up to now.

It became pretty obvious that Indonesia was marking time with regard to its ratification of the international tin agreement until the position of the American smelter was finally made clear. It seems that Indonesia prefers to sell concentrates to the U. S.A. (provided this does not result in the tin arising being pressed on the market) than to throw in its lot with the control scheme.

Meanwhile, as far as consumption of the metal is concerned, there is not very much new to report. The slowing down in the automobile industry here and in America obviously has not helped demand for tin, but the tinplate industry of the world still seems to be pretty busy and is looking forward to increased production in the future. On the basis of the factors affecting tin as at present understood, it seems likely that the adverse features in the situation should have been fully discounted by the fall in prices which has already taken place.

Lead A Little Easier

On balance the lead market has been a little easier in recent weeks, although as far as this country is concerned demand for lead held up rather better than that for some of the other metals which were more directly affected by the credit squeeze.

The crucial factor, however has been the volume of demand in the United States. So far this, helped by the stockpile demand in the background, has been sufficient to maintain the general level of prices in face of rather quieter conditions in the U. K. and Europe generally, but with the latest reports indicating some slowing down in American demand it remains to be seen whether the present price structure can be maintained.

The impression prevails that, for the time being at any rate, the willingness of the U. S. Government to buy lead for the stockpile at 16 cents per pound should enable the position to be held on this basis, and this being so there is no reason to suppose that the European level of quotations will move much as for some time it has been held in reasonably close alignment with the U. S. domestic market.

In this country the battery industry has not been helped by the slackness in the motor car industry and cable makers have not been enjoying particularly active demand just recently. With demand rather quieter than it was the threatened acute stringency in supplies due to

(Continued on page 19)

U. K. LEAD STATISTICS

Figures received from the British Bureau of Non-Ferrous Metal Statistics show a drop in stocks of imported virgin lead at the end of January at 21,227 tons compared with 27,194 at the end of December, and 13,099 tons of English refined (13,793 tons). Imports during the month totalled 10,312 tons and production of English refined was 6,855 tons.

Consumption, details of which appear below, was 7,110 tons of English refined and 16,246 tons of imported virgin.

	Jan. 1956	Jan. 1956
Cables	9,542	8,260
Batteries — as metal	2,598	2,366r
Battery Oxides	2,634	2,431r
Tetraethyl Lead	2,089	1,755
Other Oxides & compounds	2,078	2,255r
White Lead	1,087	1,075
Shote	426	430
Sheet & Pipe	5,980	6,018
Foil & Collapsible Tubes ..	493	394
Other Rolled & Extruded ..	681	638
Solder	1,031	1,116
Alloys	1,332	1,229
Misc. Uses	1,041	1,121
TOTAL CONSUMPTION ..	31,012	29,088r
of which:		
Imported Virgin Lead	16,246	17,736r
English Refined	7,110	4,720
Scrap including remelted ..	7,656	6,632r

r—revised.

U. K. TIN STATISTICS

Stocks of tin in the U. K. at the end of January were up at 3,236 tons compared with 2,999 tons at the end of December. Of the January total, 1,422 tons were held by consumers.

Imports into the U. K. during the month were only 14 tons, and consumption was 1,881 tons. Full consumption details are as follows:-

	Jan. 1956	Jan. 1955
TINPLATE	778	823
TINNING:		
Copper Wire	45	43
Steel Wire	9	9
Other	76	70
TOTAL	130	122
SOLDER	243	173
ALLOYS:		
Whitemetal	287	312
Bronze & Gunmetal	237	207
Other	32	34
TOTAL	556	553
WROUGHT TIN (1)		
Foil & Sheet	30	39
Collapsible Tubes	37	38
Pipes, wire & capsules	2	3
TOTAL	69	80
CHEMICALS (2)	91	83
OTHER USES (3)	14	15
TOTAL ALL TRADES	1,881	1,849

Notes: (1) Includes Compo and "B" metal. (2) Mainly Tin Oxide. (3) Mainly powder.

U. K. ZINC STATISTICS

Stocks of zinc in the U. K. showed a decline at the end of January at 45,239 tons compared with 49,962 tons at the end of December, according to reports received from the British Bureau of Non-Ferrous Metal Statistics. Of the January totals, 21,459 tons were held by consumers and 875 tons were in L. M. E. approved warehouses. Imports into the U. K. in January totalled 10,101 tons and production was 6,083 tons of virgin. Consumption during the month, full details of which appear below, was 21,323 tons of virgin and 477 tons of remelted and scrap.

	Jan. 1956	Jan. 1955
Brass	10,395	9,927
Galvanising	8,934	8,969
of which:		
General	3,007	2,896
Sheet	2,547	2,805
Wire	1,807	1,930
Tube	1,573	1,338
Rolled Zinc	2,059	1,992
Zinc Oxide	2,816	2,936
Zinc Diecasting & Forming Alloy	3,757	3,420
Zinc Dust	833	915
Misc. Uses	985	1,023
TOTAL ALL TRADES	29,779	29,192
of which:		
Virgin Zinc: High Purity (99.99%)	4,087	3,685
Electro & High Grade (99.95%)	6,351	6,225
Prime Western g. o. b. & debased	10,885	12,157
Remelted Zinc	477	464
Brass & other copper alloy Scrap (zinc content)	4,672	3,931
Scrap Zinc Metal Alloy, Residues, etc. (zinc content)...	3,307	2,730

United States Duties on Principal Ore and Metal Imports

(Including Revisions in Effect June 6, 1951, Under Torquay Agreements)

(Quantities Are in Pounds Unless Otherwise Stated; n.s.p.f. Stands for "Not Specially Provided For.")

COPPER

NOTE—The excise tax of 4c a pound on copper (which was reduced to 2c a pound by the Geneva Trade Agreement) was suspended in April, 1947, until March 31, 1949, and on expiration it was further suspended until June 30, 1950. The tax was reimposed on July 1, 1950. It was suspended again on May 22, 1951, retroactive to April 1, 1951, and until February 15, 1953, and again until June 30, 1954. Suspension further extended to June 30, 1955, and again until June 30, 1958.

Copper ore and concentrates, usable as flux, etc., copper content	free
Copper ore and concentrates, product of Cuba and Philippines, copper content	free
Copper ore and concentrates, copper content	free
Regulus, black, or coarse copper, and cement copper, copper content	free
Unrefined black, blister, and converter copper in pigs or converter bars, copper content	free
Refined copper in ingots, plates or bars, copper content	free
Copper rolls, rods or sheets	1¼c lb.
Copper seamelss tubes and tubing	3½c lb.
Copper plain wire	12½%
Copper brazed tubes	5½c lb.
Old and scrap copper, fit only for remanufacture; and scale and clippings, copper content	free

BRASS

Brass rods, sheets, plates, bars, strips, muntz or yellow metal sheets, sheathing, bolts, piston rods, shafting and bronze rods, tubes and sheets	2c lb.
Brass tubes and tubing, seamless	2c lb.
Brass tubes, brazed, angles and channels	6c lb.
Brass and bronze wire	12½%

LEAD

NOTE—Import duties on lead-bearing ores, flue dust, and mattes of all kinds, lead bullion or base bullion, lead in pigs and bars, lead dross, reclaimed lead and antimonial lead were suspended Feb. 12, 1952, and reimposed on June 26, 1952. Lead scrap duty was reimposed July 1, 1952.

Lead-bearing ores and mattes, n. s. p. f., lead content	¾c lb.
Bullion or base bullion, lead content	1 1/16c lb.
Pigs and bars, lead content	1 1/16c lb.
Reclaimed, scrap, dross, lead content	1 1/16c lb.
Babbitt metal and solder, lead content	1 1/16c lb.
Pipe, sheet, shot, glaziers' lead, and wire	1 5/16c lb.
Type metal and antimonial lead, lead content	1 1/16c lb.
White lead	1.05c lb.
Litharge	1¼c lb.
Red lead	15/16c lb.
Orange mineral	1c lb.

ZINC

NOTE—Import duties on zinc-bearing ores, and on zinc in blocks, pigs and slabs were suspended Feb. 12, 1952, and reimposed on July 24, 1952. Tax on old zinc and dross and skimmings reimposed July 1, 1953.

Zinc-bearing ores, except pyrites containing not more than 3% zinc, zinc content	6/10c lb.
Zinc contained in zinc-bearing ores, n. e. s., not recoverable, zinc content	6/10c lb.
Zinc, old and worn out, fit only for remanufacture	¾c lb.
Dross and skimmings	¾c lb.
Zinc in blocks, pigs, or slabs	7/10c lb.
Zinc in sheets	1c lb.
Zinc sheets, plated with nickel or other base metal, or solutions	1¼c lb.
Zinc dust	7/10c lb.
Zinc die-casting alloys	12½%
Zinc oxide and leaded zinc oxides containing not more than 25% lead, dry	3/5c lb.
ground in or mixed with oil or water	1c lb.

MISCELLANEOUS METALS AND ORES

Aluminum, metal and alloys, crude, except alloys elsewhere provided for	1½c lb.
Aluminum scrap	free
Aluminum plates, sheets, bars, rods, circles, squares, etc	3c lb.
Antimony ore, antimony content	free
Antimony metal and regulus	2c lb.
Antimony needle or liquidated	¼c lb.
Antimony oxide	1c lb.
Antimony sulphides	½c lb. & 12½%
Arsenic, metallic	3c lb.
Arsenious acid or white arsenic	free
Bauxite, crude*	free
Bauxite, refined	¼c lb.
Bismuth	1⅞%
Bismuth salts and compounds	35%
Beryllium metal and compounds	25%
Beryllium ore	free
Cadmium	3¾c lb.
Cadmium flue dust, cadmium content	free
Chrome ore or chromite	free
Cobalt ore and concentrates, cobalt content	free
Chrome or chromium metal	12½%
Cobalt metal	free
Magnesium, metallic	20c lb.
Magnesium scrap	free
Magnesium alloys, powder, sheets, wire	20c lb. & 10%
Manganese ores, containing over 10% manganese, manganese content	¼c lb., except Cuba, free
Molybdenum ore or concentrates, molybdenum content	35c lb.
Nickel ore, matte and oxide	free
Nickel and alloys, nickel chief value, n. s. p. f., in pigs, ingots, shot, cubes, grains, cathodes, or similar forms	1¼c lb.
Nickel, bars, rods, plates, sheets, castings, strips, wire or electrodes	12½%
Nickel tubes, tubing	6¼%
(if cold rolled, drawn or worked—2½% extra)	
Nickel scrap	free
Platinum, ores, platinum content, oz. troy	free
Platinum, grain, nuggets, sponge and scrap, oz. troy	free
Platinum in ingots, bars, sheets, or plates, not less than ⅛ in. thick, oz. troy	free
Quicksilver or mercury	25c lb.
Selenium and salts	free
Tantalum	12½%
Tin ore, cassiterite, and black oxide of tin, tin content	free
Tin in bars, blocks, pigs, grain, granulated, and scrap, and alloys, chief value tin, n. s. p. f.	free
Tungsten ore or concentrates, tungsten content	50c lb.

*Crude bauxite import duty suspended for two years, effective July 16, 1954.

CLEARER COPPER PRICE PICTURE SEEN DEVELOPING AS SPREAD NARROWS AMONG MULTIPLE QUOTATIONS

Steady Tone in Lead and Zinc Supported by Gov't Stockpile Purchases; Tin Moves in Narrow Range; Silver Fluctuates; Spot Quicksilver Firmer

April 9, 1956

A CLEARER copper price picture appeared to be developing, with the spread narrowing among the multiple quotations. Primary producers maintained their 46.00c a pound level, delivered, for electro copper. But custom smelters, who only a few weeks earlier had been quoting 55.00c a pound for eletcro, currently were doing business at 51.00c. The gap between London Metal Exchange quotations and the fixed Rhodesian Selection Trust copper price for British consumers also narrowed. The LME price at the first call on April 9 was equivalent to 48.00c a pound, as against the top figure of 54.625c some weeks ago. The RST fixed price was maintained at 48.125c (in effect since February 27).

Another set of pricing procedures for copper was added to the already lengthy list when Anaconda and Kennecott announced they would sell their Chilean-produced metal in the U. S. A. on the basis of London Metal Exchange quotations.

Kennecott's subsidiary, Chase Brass & Copper Co., increased its prices for fabricated copper and brass products on April 6, reflecting a price for copper of 47.50c a pound. Other major fabricators, who in mid-March had advanced their prices to reflect a 49.00c copper price, revised their quotations downward to meet those of Chase Brass.

Lead and zinc prices were steady during the month in review with Government stockpiling helping to maintain the status quo.

All of the "Big Three" primary aluminum producers, by March 29, were quoting 25.90c a pound for 99 per cent plus primary aluminum ingot, a rise of 1.50c a pound.

Tin quotations moved in a narrow range. Quicksilver developed a firmer tone. Silver continued to move up and down although the fluctuations were not as numerous as during the previous month in review.

46.00c Price Maintained

While producers maintained their domestic price for electrolytic copper at 46.00c a pound, they were unable to satisfy the demand at this figure. Custom smelters, who on March 19 to March 22 were quoting 54.50c a pound for electro, asked around 50.00c to 50.50c in the closing days of March, but on April 4 moved up to 51.00c a pound. Although London Metal Exchange quotations were lower and there was an easier tone in the domestic scrap copper market, smelters had little electro available for shipment in April, and did not appear particularly keen about opening their order books for May.

Smelters on April 6 were paying 42.50 to 43.00c a pound for No. 2 heavy copper and wire scrap, and on April 9 the range was cut another 0.50c a pound, to 42.00c to 42.50c.

At the first call on April 9, the LME copper price was equivalent to 48.00c a pound. There was little doubt that some domestic producers would like to see London go lower so as to further reduce the spread between the domestic and LME quotations. But at the second LME session on April 9 there was a recovery (to 48.625c) on the news that the Mufulira mine in Northern Rhodesia had been idled by a strike of some 1,300 European workers who objected to the plan for advancing the African workers. Early cable advices were to the effect that only the mine had been shut down and not the smelter. If the strike is prolonged, it may have a bullish effect on the LME.

The pricing methods used by Anaconda and Kennecott for their sales of Chilean copper in the U. S. A. became more uniform. Both firms base their prices on the weekly average of the London Metal Exchange spot delivery bid and asked quotation at the first trading session each day. While Anaconda's Chilean copper is sold on the basis of the LME average for the week prior to the week of shipment from Anaconda's refinery at Raritan, N. J., Kennecott's selling price is based on the week when shipment is made from San Antonio, Chile, less the usual differential of 0.25c a pound for fire refined copper.

Revise Copper Products

Most of the major fabricating mills had achieved a uniform price for their copper and brass products, apparently based on copper at 47.50c a pound. In mid-March, most of the major fabricators, with the exception of Chase Copper and Brass and Phelps Dodge Copper Products and several others had increased their mill quotations 3.00c a pound for copper items and proportionately for brass products, to reflect a copper price of 49.00c. On April 6, Chase increased its copper items 1.50c a pound and brass products proportionately, reflecting copper at 47.50c.

American Brass Co., Revere Copper and Brass and Bridgeport Brass Co. immediately reduced their mill prices to reflect copper at 47.50c also, and bringing them in line with those of Chase Brass. Scovill Manufacturing Co. took similar action, effective April 9.

Anaconda Wire & Cable Co. and Rome Cable Co., effective April 6, also reduced their wire and cable quotations to reflect a 47.50c copper price. On March 19 both these wire mills had increased their prices to a 49.00c copper basis. While Anaconda and Rome on April 6 cut in half the increases they made on March 19, such major factors at Kennecott Wire and Cable Co., Phelps Dodge Copper Products and General Cable Co. were still basing their wire and cable prices on copper at 46.00c, so that ranges prevailed on April 6.

Fabricators in Quandary

Domestic fabricators were in a greater quandary currently than they were when they were able to get Chilean copper at the same price as Anaconda and Kennecott quoted for their domestically-produced copper (46.00c.) For the present, they do not know what the Chilean metal will cost them because the price of Chilean metal now depends on the LME quotations which at times fluctuate violently. The fact that independent fabricators are still unable to have all their copper needs met, either by Chilean or domestic metal, accounts for the 51.00c a pound smelters are getting for their electro.

There was a growing resistance on the part of fabricators to pay premi-

CUSTOM SMELTER ELECTRO COPPER AT 48½-49c LB.

Copper: Domestic custom smelters' electrolytic copper was quoted on April 17 at 48.50 to 49.00c a pound delivered, down about 7.00c from a month ago; smelters cut their scrap copper buying prices to the basis of 40.00c a pound for No. 2 heavy copper and wire scrap. Cash bid copper at the first cal on the Lolndon Metal Exchange on April 18 was equivalent to 45.69c a pound.

Tin: Spot Straits tin was quoted at 99.25c a pound in the New York market on April 17; prompt tin also was quoted at 99.25c.

Magnesium: Dow Chemical Company increased its primary magnesium prices 1.25c a pound on April 16, bringing primary pig to 33.75c a pound and primary ingot to 34.50c, both f. o. b. Valesco, Texas.

Quicksilver: Quicksilver supplies tightened with sales of spot made only to regular customers at $268-$270 per flask on April 10.

Aluminum: Aluminum scrap export quota for second quarter limited to 4,000 short tons as against 6,000-ton quota for first quarter. Secondary aluminum market continued to weaken, with prices down for smelters' alloys and also smelters' scrap aluminum buying prices.

um prices except in emergency situations since their own customers were reluctant to pay more for fabricated items. Fabricators, however, admitted that custom smelter and outside market quotations had one advantage at least, namely certainty. Fabricators know what the metal will cost them before it is shipped.

Lead, Zinc for Stockpile

The Government again entered the market for lead and zinc for shipment to the strategic stockpile. Producers were requested last month to submit their offers by noon of March 28, with delivery of the metal to be completed by May 15. The fact that the General Services Administration (the Government buying agency) entered the market for its regular monthly purchase of the metals served as a reminder that the Government has virtually established a floor price for lead and zinc.

Consumers have been coming into the market of late for moderate tonnages of lead for April shipment. Most of such business was placed at 16.00c a pound, New York, and at 15.80c St. Louis. Buying in volume for May shipment, it was anticipated in some quarters, would develop shortly.

A fair volume of zinc business was being placed, particularly by galvanizers, on the basis of 13.50c a pound East St. Louis for the Prime Western grade for shipment in April. Some May shipment sales also were taking place, with such business placed at the May average.

Thus far, zinc purchases for May shipment have been on the light side but the current rate of consumption has been higher than the daily purchases at this time would seem to indicate.

Production of zinc (all grades) in March came to 86,322 tons as against 91,678 tons in February. Shipments totaled 91,485 tons as compared with 87,826 tons in February. Slab zinc stocks in the hands of producers at the end of March were 40,038 tons, only 205 tons larger than at the end of the preceding month.

Tin Fairly Steady

New York tin prices, during the month in review, have been fairly steady. Spot Straits tin at New York was quoted at 99.50c a pound on April 9 as against the last previously quoted price in this space of 100.125c for March 21. The high for the March 21-April 9 period was the 101.50c a pound registered on March 28, and the low was the 98.50c of March 23.

Primary Aluminum at 25.90c

As reported in our late news section last month, Kaiser Aluminum & Chemical Co. increased its virgin aluminum prices 1.50c a pound across-the-board, effective March 26. Reynolds Metals Company quickly took similar action, also effective March 26. Aluminum Company of America, the other member of the "Big Three," made it unanimous as of March 29. The increases brought the base price for standard aluminum pig to 24.00c a pound and the base price for 99 per cent plus aluminum ingot to 25.90c a pound.

Reynolds Metals, in announcing its increases, said the price boost had long been necessary "to assure our customers the expanded aluminum supplies required to meet their growing demands."

Secondary aluminum ingot prices, which advanced approximately 1.00c a pound following the increase in primary aluminum, later eased off 0.25c to 0.50c a pound on April 9.

Silver Fluctuates

Silver prices during the month in review continued to fluctuate as they have so far this year. On April 9 the price moved up 0.125c an ounce to 91.00c. On March 2 the price had been 91.125c an ounce; it advanced to 91.25c on March 26, dropped to 90.75c on April 3, moved back to 90.875c on April 6, and to 91.00c on April 9.

Quicksilver Firmer

During the month in review there was a reversal in the downward price trend for quicksilver. On March 14 the price had declined to $258 to $260 per flask. It held at this level for over two weeks during which the spot supply situation deteriorated. On April 4 the spot price moved up to $262 to $264 per flask.

Daily Metal Quotations in March, 1956

The following quotations are taken from the Daily Metal Reporter

(In Cents Per Pound)

	Copper				Tin — Straits New York		Lead		Zinc					Aluminum	Antimony	Silver
	Producers' Price Del. Conn.	Custom Smelters' or Outside Price	Electro f. o. b. Refinery	Lake Del.	Spot	Prompt	New York	Outside St. Louis	Prime West. f. o. b. E. St. Louis	Prime West. Del. N. Y.	Brass Spec. f. o. b. E. St. Louis	High Grade Delivered	Spec. High Grade Delivered	Virgin 99%	Domestic Spot 99.5% f.o.b. Laredo	(Cents Per Ounce) New York
.....	46.00	53.00	45.70	46.00	101.00	100.625	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	91.00
.....	46.00	53.00	45.70	46.00	100.00	99.75	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	91.125
.....	46.00	53.00	45.70	46.00	.....	.....	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	....
.....	46.00	53.00	45.70	46.00	101.50	101.50	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	91.125
.....	46.00	53.50	45.70	46.00	101.00	101.00	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	91.125
.....	46.00	53.50	45.70	46.00	101.00	100.875	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	91.125
.....	46.00	53.75	45.70	46.00	101.25	101.00	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	91.125
.....	46.00	53.75	45.70	46.00	.....	.....	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	91.125
.....	46.00	53.75	45.70	46.00	102.00	101.875	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	....
.....	46.00	53.75	45.70	46.00	101.75	100.75	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	91.125
.....	46.00	53.75	45.70	46.00	101.875	100.125	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	91.125
.....	46.00	53.75	45.70	46.00	102.25	99.25	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	91.125
.....	46.00	54.25	45.70	46.00	101.25	98.50	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	91.125
.....	46.00	54.25	45.70	46.00	.....	.....	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	91.125
.....	46.00	54.25	45.70	46.00	101.00	100.875	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	....
.....	46.00	54.50	45.70	46.00	100.75	100.75	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	91.125
.....	46.00	54.25	45.70	46.00	100.125	100.125	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	91.125
.....	46.00	54.25	45.70	46.00	99.25	99.25	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	91.125
.....	46.00	54.50	45.70	46.00	98.50	98.50	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	91.125
.....	46.00	53.25	45.70	46.00	.....	.....	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	91.125
.....	46.00	53.25	45.70	46.00	98.875	98.75	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.40	33.00	....
.....	46.00	51.00	45.70	46.00	99.375	99.25	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.65	33.00	91.25
.....	46.00	50.25	45.70	46.00	99.375	99.25	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.65	33.00	91.25
.....	46.00	50.50	45.70	46.00	101.50	100.375	16.00	15.80	13.50	14.00	13.75	14.85	15.25	24.65	33.00	91.25
.....	46.00	50.25	45.70	46.00	100.00	99.875	16.00	15.80	13.50	14.00	13.75	14.85	15.25	25.90	33.00	91.25
.....	46.00	50.25	45.70	46.00	.....	.....	16.00	15.80	13.50	14.00	13.75	14.85	15.25	25.90	33.00	....
V.	**46.00**	**53.111**	**45.70**	**46.00**	**100.786**	**100.524**	**16.00**	**15.80**	**13.50**	**14.00**	**13.75**	**14.85**	**15.25**	**24.60**	**33.00**	**91.138**
1.	**46.00**	**54.50**	**45.70**	**46.00**	**102.25**	**102.125**	**16.00**	**15.80**	**13.50**	**14.00**	**13.75**	**14.85**	**15.25**	**25.90**	**33.00**	**91.00**
0.	**46.00**	**50.00**	**45.70**	**46.00**	**98.50**	**98.50**	**16.00**	**15.80**	**13.50**	**14.00**	**13.75**	**14.85**	**15.25**	**24.40**	**33.00**	**91.25**

British Metal Markets

(Continued from page 13)

the strike of Australian dockworkers earlier in the year now seems rather unlikely to develop.

Zinc Demand Slower

Demand for zinc in this country has definitely been slower in recent weeks than it was at the beginning of the year. The brass mills are operating well below their peak capacity and the zinc alloy die casting industry is feeling the effects of the credit squeeze in the shape of lessened demand from the motor car and consumer durable goods industries.

The supply position of the metal has accordingly eased somewhat, although there is as yet no heavy surplus of supplies pressing on the market, and while the American market continues firmly held on the basis of 13.50 cents per pound East St. Louis, there seems no reason for pessimism about price levels here. Continued offerings of Russian high grade zinc have served to reduce the premium obtainable for this grade which is now generally of the order of about £6 to £8 over g. o. b.

In zinc, as in lead, the key to the whole situation really lies in whether the stockpile authorities in America will continue to support the market at the present price level. If they are willing to do so on a scale sufficiently large to absorb any temporary surpluses of zinc which may arise there is nothing to worry about, and for the time being at any rate, most people here seem to be working on that assumption.

Once the Budget here is out of the way it should be possible to get a clearer view of the industrial outlook and it may well be found that the recent recession in business in some directions will be followed by a slight improvement, although it is very doubtful whether in present circumstances this year will be as good as last. The dangerous political position in the Middle East is, of course, an uncertain factor of considerable potential importance.

Washington Report

(Continued from page 5)

nounced by the U. S. Bureau of Foreign Commerce, also on March 21.

The copper raw material quotas are about unchanged from those for the first quarter. They are: 3,000 short tons for new and old copper scrap; 9,400 short tons (metal weight), equivalent to about 6,000 short tons (copper content) for new and old copper base alloy scrap containing 40 per cent or more copper, and 600 short tons (metal weight) for copper base alloy ingots and other crude forms.

Second quarter export licensing of nickel-bearing scrap will continue under the policy established in previous quarters, with exporters required to submit evidence of unsalability on the domestic market in support of applications for licenses.

As in previous quarters, the second-quarter quota for selenium has been set at a total of 6,000 pounds (selenium content.) Effective April 1, the BFC imposed tighter export controls for selenium-bearing scrap. Applications to export such scrap will be considered only when supported by evidence of unsalability in the domestic market or by certification that the scrap is being exported under toll or conversion agreement for return to the U. S.

The Smelter Operation

President Eisenhower's willingness to allow the Government's tin smelter at Texas City, Texas, to operate until January 31, 1957, instead of June 30, 1956, helped strengthen the tin market early in April. The President sent along to Congress a report prepared by the ODM with the aid of other Government agencies. The President said he agreed with the conclusions and recommendations of the report.

In a memorandum accompanying the report to the President, ODM Director Arthur S. Flemming said it would be desirable to sell the plant to private industry by June 30, 1956, but the complexity of the transaction might require extension of the deadline to January 31, 1957.

Copper Brands

Deliverable Against Commodity Exchange, Inc.

Brand or Marks	Producer	Grade
B. E. R.	American Smelting & Refining Co. (Baltimore, Md.)	Electrolytic
P. A.	American Smelting & Refining Co. (Maurer, N. J.)	Electrolytic
T	American Smelting & Refining Co. (Tacoma, Wash.)	Electrolytic
B. & M.	Anaconda Copper Mining Co.	Electrolytic
AE	Andes Copper Mining Co.	Electrolytic
BOLIDEN	Boliden-Gruvaktiebolag	Electrolytic
C. C. R.	Canadian Copper Refiners Ltd. (Montreal)	Electrolytic
C de P Peru	Cerro de Pasco Corporation	Electrolytic
C. C. C.	Chile Copper Company	Electrolytic
F E C	Falconbridge Nickel Mines, Ltd.	Electrolytic
K U E	Kennecott Copper Corp.	Electrolytic
L. M. C.	Lewin Metals Corporation	Electrolytic
M U F	Mufulira Copper Mines, Ltd.	Electrolytic
N A	Norddeutsche Affinerie	Electrolytic
O R C	Ontario Refining Co., Ltd.	Electrolytic
A. L. S.	Philps Dodge Refining Corp. (For Adolph Lewisohn Selling Corp.)	Electrolytic
L. N. S.	Phelps Dodge Refining Corp.	Electrolytic
P • D	Phelps Dodge Corporation	Electrolytic
N. E. C.	Raritan Copper Works	Electrolytic
R E C	Rhokana Corporation	Electrolytic
B O R	Rudnici Bakra i Topionice	Electrolytic
U M K	Union Miniere du Haut Katanga	Electrolytic
D R W	†United States Metals Refining Co.	Electrolytic
AMCO	†United States Metals Refining Co.	Electrolytic
OFHC	†United States Metals Refining Co.	Electrolytic
W E K	Zinnwerke Wilhelmsburg G.m.b.H.	Electrolytic

†Subsidiary, The American Metal Co., Ltd.

Brand or Marks	Producer	Grade
C & H	Calumet & Hecla Consolidated Copper Co.	Lake
C. R.	Copper Range Company	Lake
Q. M. CO.	Quincy Mining Company	Lake

Brand or Marks	Producer	Grade
B. C. R.	British Copper Refiners, Ltd.	Fire Refined High Conductivity
N. H. E.	Nassau Smelting & Refining Co., Inc.	Fire Refined High Conductivity
A M CO	United States Metals	Fire Refined High
R H C	Refining Company	Conductivity

Brand or Marks	Producer	Grade
• • • (3 Star)	Braden Copper Company	Fire Refined (other than Lake & Fire Refined High Conductivity)
K C M	Kennecott Copper Corporation	
M T D	Messina (Transvaal) Development Co.	
P. D. M.	Phelps Dodge Corporation	
R	†United States Metals Refining Company	

Official List of Approved Refiners

Whose CATHODES are deliverable against Commodity Exchange, Inc., Copper Contract

American Smelting & Refining Co.
Anaconda Copper Mining Co.
Andes Copper Mining Co.
Bolidens Gruvaktiebolag
Canadian Copper Refiners, Ltd.
Cerro de Pasco Copper Corp.
Chile Copper Company
Consolidated Mining & Smelting Co.
Falconbridge Nickel Mines, Ltd.
Kennecott Copper Corp.
Lewin Metals Corp.
Mufulira Copper Mines, Ltd.
Norddeutsche Affinerie
Ontario Refining Co., Ltd.
Phelps Dodge Refining Corp.
Phelps Dodge Corporation
Raritan Copper Works
Rhokana Corporation
Rudnici Bakra i Topionice
Union Miniere du Haut Katanga
United States Metals Refining Co.
Zinnwerke Wilhelmsburg G.m.b.H.

Copper Statistics Reported by Copper Institute

Combined Totals in U. S. A. and Outside U. S. A.

(In tons of 2,000 pounds)

	Crude Production		Refined	Deliveries to	Refined Stock	Stock Increases or Decreases		
	Primary	Secondary	Production	Customers	End of Period	Blister	Refined	Total
1954 Total	2,358,107	107,745	2,466,547	2,453,954	228,637	— 695	—139,605	—140,300
1955								
Feb.	203,338	13,472	212,823	225,255	188,916	+ 3,987	—16,362	—12,375
Mar.	231,701	10,558	237,526	235,118	195,064	+ 4,733	+ 6,148	+10,881
Apr.	231,236	10,842	224,525	221,415	200,835	+17,553	+ 5,771	+23,324
May	229,774	12,305	251,791	233,645	219,960	— 9,712	+19,125	+ 9,413
June	232,058	11,898	240,499	248,449	209,945	+ 3,416	—10,015	— 6,599
July	167,746	8,279	159,499	149,643	219,643	+16,626	+ 9,698	+26,324
Aug.	195,394	10,138	208,974	200,049	230,022	— 3,441	+10,379	+ 6,938
Sept.	236,949	13,788	248,481	262,118	228,002	+ 2,256	— 2,020	+ 236
Oct.	245,462	11,439	244,255	246,898	227,261	+12,646	— 741	+11,905
Nov.	229,736	9,304	239,963	248,827	218,519	— 1,283	— 8,819	—10,025
Dec.	214,114	11,713	250,349	247,222	221,331	—24,522	+ 1,643	—21,710
1955 Total	2,613,662	133,065	2,728,309	2,744,391	221,331	+18,418	— 8,552	+11,112
1956								
Jan.	233,897	11,250	237,300	242,425	217,315	+ 7,847	— 4,016	+ 3,831
Feb.	228,409	11,355	243,458	236,841	226,686	— 193	+ 9,371	+ 9,178
Mar.	224,572	14,292	258,506	262,954	224,731	+ 338	— 1,955	— 1,597

In U. S. A.

1954 Total	863,721	102,472	1,311,031	1,208,755	47,108	.....	—40,604	.....
1955								
Feb.	89,078	13,246	123,162	108,503	44,579	.....	— 1,403	.....
Mar.	98,171	10,239	135,701	131,354	46,091	.....	+ 1,512	.....
April	93,669	10,599	122,129	120,205	42,759	.....	+ 3,332	.....
May	95,042	11,731	135,042	125,169	43,340	.....	+ 581	.....
June	90,645	11,295	130,881	133,739	38,533	.....	— 4,807	.....
July	31,346	7,614	51,182	60,143	36,293	.....	— 2,240	.....
Aug.	67,990	9,364	98,732	90,516	49,350	.....	+13,057	.....
Sept.	96,343	12,739	139,880	145,590	53,625	.....	+ 4,275	.....
Oct.	99,514	10,279	127,865	134,844	49,738	.....	— 3,887	.....
Nov.	94,287	7,888	133,711	142,830	48,736	.....	— 1,002	.....
Dec.	93,186	10,912	145,423	139,512	61,554	.....	+12,818	.....
1955 Total	1,036,702	124,760	1,467,448	1,446,354	61,554	.....	+14,446	.....
1956								
Jan.	96,732	10,353	123,917	130,431	50,016	.....	—11,538	.....
Feb.	89,326	11,697	127,917	139,383	47,053	.....	— 2,963	.....
Mar.	100,272	12,595	144,027	141,590	51,595	.....	+ 4,542	.....

Outside U. S. A.*

1954 Total	1,494,386	5,273	1,155,516	1,247,120	181,529	.....	—99,001	.....
1955								
Feb.	114,260	208	89,661	116,752	144,337	.....	—14,959	.....
Mar.	133,530	319	101,825	103,764	148,973	.....	+ 4,636	.....
April	137,567	283	102,396	101,210	158,076	.....	+ 9,103	.....
May	134,732	574	116,749	108,476	176,620	.....	+18,544	.....
June	141,413	603	108,317	114,710	171,412	.....	— 5,208	.....
July	135,900	765	109,659	89,500	183,350	.....	+11,938	.....
Aug.	127,405	774	110,242	109,533	180,672	.....	— 2,678	.....
Sept.	140,606	1,049	108,601	116,528	174,377	.....	— 6,295	.....
Oct.	145,948	1,160	116,490	112,051	177,523	.....	+ 3,146	.....
Nov.	135,089	1,419	107,097	105,997	169,783	.....	— 7,740	.....
Dec.	120,928	801	104,926	107,710	159,777	.....	—10,006	.....
1955 Total	1,576,960	8,305	1,260,861	1,298,037	159,777	.....	—21,752	.....
1956								
Jan.	137,165	897	113,502	111,994	167,299	.....	+ 7,522	.....
Feb.	138,918	1,808	115,541	97,458	179,633	.....	+12,334	.....
Mar.	144,300	1,697	114,479	121,364	173,136	.....	— 6,497	.....

*Excluding Russia, Yugoslavia, Norway, Sweden, Japan, Australia.

Electrolytic Copper

Producers' Price, Del. Valley

Monthly Average Prices

(Cents Per Pound)

	1953	1954	1955	1956
Jan.	24.50	29.88	30.24	43.00
Feb.	25.46	29.88	33.00	44.03
Mar.	31.49	29.93	33.222	46.00
Apr.	30.59	29.98	36.00	....
May	29.72	30.00	36.00	....
June	29.94	30.00	36.00	....
July	29.92	30.00	36.00	....
Aug.	29.69	30.00	37.81	....
Sept.	29.75	30.00	43.00	....
Oct.	29.80	30.00	43.00	....
Nov.	29.88	30.00	43.00	....
Dec.	29.88	30.00	43.00	....
Aver.	29.15	29.27	37.522	....

Electrolytic Copper

Custom Smelters' Price, Del Valley

(Cents Per Pound)

	Custom Smelters' Price, Del. Valley			
	1953	1954	1955	1956
Jan.	24.50	29.75	30.48	50.22
Feb.	25.804	29.75	33.00	52.07
Mar.	33.269	29.866	33.667	53.11
Apr.	31.18	29.965	36.00	....
May	29.785	30.00	36.00	....
June	29.875	30.00	36.00	....
July	29.846	30.00	36.00	....
Aug.	29.375	30.00	40.14	....
Sept.	29.50	30.00	50.00	....
Oct.	29.606	30.00	45.99	....
Nov.	29.75	30.00	45.84	....
Dec.	29.75	30.00	49.42	....
Aver.	29.35	29.944	39.38	....

Lake Copper

Producers' Price, Delivered

Monthly Average Prices

(Cents Per Pound)

	1953	1954	1955	1956
Jan.	24.625	30.00	30.12	43.00
Feb.	24.625	30.00	33.00	43.783
Mar.	32.00	30.00	33.56	46.00
Apr.	32.23	30.00	36.00	....
May	Nom.	30.00	36.00	....
June	30.125	30.00	36.00	....
July	30.125	30.00	36.00	....
Aug.	30.125	30.00	37.46	....
Sept.	30.125	30.00	43.00	....
Oct.	30.125	30.00	43.00	....
Nov.	30.125	30.00	43.00	....
Dec.	30.038	30.00	43.00	....
Aver.	29.47	30.00	37.51	....

Fabricators' Copper Statistics

(In tons of 2,000 pounds)

	Fabricators' Stocks of Refined Cop.	Unfilled Purchases of Refined by Fab. from Producers	Fabricators' Working Stocks	Unfilled Sales by Fabricators to Customers	Actual Copper Consmd. by Fabricators	Excess Fabricators' Stocks Over Orders Bkd.
1950						
Total	290,241	92,372	288,392	313,052	1,438,327	—218,831
1951						
Total	280,402	32,147	295,385	303,050	1,392,111	—285,886
1952						
Total	333,455	32,652	292,157	275,312	1,389,451	—201,362
1953						
Sept.	358,081	38,593	307,612	206,476	111,805	—117,414
Oct.	352,091	31,035	305,431	187,438	116,259	—109,743
Nov.	350,804	34,380	305,877	165,047	102,258	— 85,740
Dec.	380,881	25,022	309,664	170,917	83,652	— 74,678
Total	.....	.....	.....	.....	1,375,869	.....
1954						
Jan.	355,632	26,423	307,014	142,588	100,805	— 67,547
Feb.	349,661	26,227	305,670	122,999	94,975	— 52,781
Mar.	341,693	28,836	304,065	123,887	103,796	— 57,423
Apr	341,616	30,677	302,391	124,559	104,943	— 54,657
May	349,796	33,210	305,504	123,039	102,810	— 45,537
June	351,518	43,723	304,833	122,218	104,531	— 31,810
July	370,287	41,104	307,352	130,576	80,751	— 26,537
Aug.	359,474	58,007	302,423	131,514	102,966	— 16,456
Sept.	341,726	50,650	300,603	148,515	106,628	— 56,742
Oct.	330,787	50,240	299,068	135,140	116,232	— 53,181
Nov.	335,315	55,517	301,097	137,076	114,392	— 47,341
Dec.	360,526	58,125	304,619	136,581	99,479	— 22,549
Total	.....	.....	.....	.....	1,232,090	.....
1955						
Jan.	334,105	66,122	302,658	159,016	136,539	— 61,447
Feb.	323,425	75,840	301,597	180,898	118,786	— 83,230
Mar.	311,235	85,859	301,937	187,827	143,544	— 92,670
Apr.	316,575	88,992	304.117	205,308	115,073	—103,858
May	327,343	111,715	309,219	323,279	113,485	—102,440
June	327,696	126,703	309,972	234,578	132,377	— 90,151
July	312,587	165,505	301,048	286,095	75,846	—109,051
Aug.	304,097	150,854	303,089	283,653	97,688	—131,791
Sept.	334,996	133,391	314,111	270,102	113,628	—115,826
Oct.	353,469	135,075	313,048	275,255	115,453	— 99,759
Nov.	373,314	139,855	313,779	283,953	122,332	— 84,563
Dec.	389,974	139,094	314,145	293,264	127,006	— 78,341
Total	.....	.....	.....	.....	1,412,287	.....
1956						
Jan.	376,753	143,815	312,128	305,942	138,711	— 97,502
Feb.	388,823	135,637	319,279	282,314	130,923	— 77,133

Scrap Copper Receipts by Custom Smelters and Refineries in United States*

(In Short Tons)

	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
Jan.	7,080	10,172	17,084	15,763	6,640	4,528	6,486	9,859	11,047	14,322
Feb.	5,394	11,890	20,238	12,500	5,153	3,633	10,337	8,490	15,198	14,497
Mar.	9,187	11,954	20,678	13,538	7,912	5,243	19,991	9,738	12,198	15,900
Apr.	13,065	15,125	15,968	12,304	8,553	6,214	16,584	9,004	13,162	.....
May	14,264	16,357	14,237	8,749	8,458	8,033	10,857	8,687	15,133	.....
June	9,883	11,178	8,809	20,523	8,628	4,425	10,945	13,309	14,765	.....
July	8,578	8,370	7,782	10,040	6,642	5,188	9,063	10,260	9,988	.....
Aug.	8,572	17,081	8,246	10,452	6,113	5,003	7,137	10,100	12,197	.....
Sept.	10,611	16,001	10,980	4,903	3,561	4,667	9,042	10,641	15,037	.....
Oct.	8,522	10,854	6,401	9,459	3,336	4,602	10,065	11,662	12,897	.....
Nov.	8,070	7,625	15,347	9,237	3,179	4,724	7,815	10,879	9,865	.....
Dec.	9,154	11,826	10,583	7,178	4,538	6,208	11,476	14,876	13,180	.....
Total ...	112,336	147,931	156,303	142,067	71,812	62,370	129,798	127,449	154,714	.....

*As compiled by Copper Institute.

Brass and Bronze Ingot Monthly Shipments

(Net Tons)

The following figures showing the combined shipments of ingot brass and bronze are compiled by the Ingot Brass and Bronze Industry and represent in excess of 95 per cent of the deliveries of the entire industry.

	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
Jan.	29,196	27,841	26,998	19,456	18,874	28,416	28,315	24,423	20,661	25,201	27,736
Feb.	24,580	24,686	22,487	15,026	18,487	27,168	24,211	25,429	19,920	25,349	24,949
Mar.	27,176	17,477	24,282	14,550	22,494	31,997	23,890	28,256	23,653	29,713	28,310
Apr.	30,228	24,577	25,177	10,695	22,118	30,472	22,547	25,044	24,746	27,641	.....
May	27,333	19,525	23,716	11,114	23,643	33,267	21,740	21,660	22,269	23,708	.....
June	31,349	16,929	24,401	9,696	25,093	33,817	21,274	20,818	22,348	23,141	.....
July	26,677	16,728	20,456	10,220	21,609	32,016	18,947	19,321	17,074	18,513	.....
Aug.	27,896	18,589	24,098	14,194	26,689	25,285	21,807	20,156	21,684	27,018	.....
Sept.	27,390	19,025	23,641	16,208	28,811	22,285	22,770	21,463	22,464	26,349	.....
Oct.	31,461	22,806	21,559	18,026	32,240	23,124	25,811	22,280	24,080	25,228	.....
Nov.	29,232	21,666	21,731	18,488	31,748	23,544	23,441	21,860	23,061	25,102	.....
Dec.	27,206	23,862	20,954	17,960	28,575	20,987	22,983	20,541	21,274	21,448	.....
Total ...	339,724	263,711	279,500	175,643	303,563	332,378	277,736	271,251	268,233	298,406	.....
Aver. ...	28,310	21,976	23,292	14,637	25,297	27,615	23,145	22,604	21,936	24,867	.....

Mine Production of Copper in United States

(U. S. Bureau of Mines)

(In short tons)

	Eastern	Missouri	Western	Total
1953				
Ttl.	38,900	2,374	885,174	926,448
1954				
July	2,976	139	63,436	66,551
Aug.	2,947	155	48,566	51,668
Sept.	3,427	157	58,527	62,111
Oct.	3,683	150	67,382	71,215
Nov.	3,660	136	75,412	79,208
Dec.	4,156	137	77,124	81,417
Ttl.	40,302	1,925	793,241	835,472
1955				
Jan.	5,054	175	78,071	83,300
Feb.	5,339	185	77,968	83,492
Mar.	6,655	220	86,894	93,769
Apr.	5,644	190	83,320	89,154
May	4,606	199	86,019	90,824
June	5,192	189	84,011	89,392
July	4,678	169	28,496	33,343
Aug.	5,028	125	62,082	67,235
Sept.	6,928	130	83,213	90,271
Oct.	6,552	195	85,445	92,192
Nov.	6,188	184	84,681	91,053
Dec.	6,758	179	81,638	88,575
Ttl.	68,622	2,140	921,838	992,600
1956				
Jan.	7,674	163	87,688	95,505

Average Custom Smelters' Scrap Buying Prices

(Cents per pound for carload lots del. consumers' works)

	No. 1 Copper Scrap	No. 2 Copper Scrap	Light Copper Scrap	Refinery Brass*
1954				
Av.	26.75	25.22	23.69	22.92
1955				
Feb.	32.80	31.30	29.73	27.92
Mar.	34.28	32.78	31.03	29.43
Apr.	34.48	32.98	31.23	30.61
May	33.70	32.20	30.45	30.00
June	35.57	34.07	32.32	31.61
July	37.39	35.89	34.04	33.06
Aug.	39.93	38.43	36.40	34.24
Sept.	43.88	42.38	40.00	38.21
Oct.	39.48	37.98	36.69	35.83
Nov	40.08	38.58	36.33	36.34
Dec.	42.75	41.25	38.79	38.71
Av.	37.035	35.535	33.59	32.70
1956				
Jan.	42.39	40.89	38.42	38.26
Feb.	43.35	41.85	39.35	38.65
Mar.	45.77	44.27	41.77	41.02

*Of dry content for material having a dry copper content in excess of 69%.

Brass Ingot Makers' Scrap Copper Buying Prices

(Average Prices)

(Cents per pound del. refinery for 60,000 lbs. of each grade)

	No. 1 Copper Scrap	No. 2 Copper Scrap	No. 1 Composition	Heavy Yellow Brass
1954				
Av.	26.59	25.07	20.99	16.24
1955				
Feb.	30.85	29.35	26.27	20.66
Mar.	33.66	31.83	27.44	21.43
Apr.	33.73	31.99	27.90	21.38
May	33.66	32.16	27.08	24.18
June	34.79	33.29	27.77	20.63
July	36.83	35.33	30.15	22.535
Aug.	39.74	38.24	32.67	23.76
Sept.	43.88	42.38	35.01	24.96
Oct.	39.468	37.968	32.22	22.80
Nov.	40.08	38.58	33.15	22.53
Dec.	43.58	41.22	34.84	24.22
Av.	36.63	35.02	29.905	22.35
1956				
Jan.	42.39	40.89	35.22	24.51
Feb.	43.35	41.85	34.72	24.79
Mar.	45.77	44.27	36.46	27.76

United States Lead Statistics of Primary Refineries

(American Bureau of Metal Statistics)
(In tons of 2,000 lbs.)

	Stock At Beginning	Production Primary & Secondary	Total Supply	Stock At End	Domestic Shipments
1952	25,339	532,778	558,117	43,560	492,091
1953	43,560	533,883	577,443	81,152	488,437
1954					
February	**92,496**	**42,046**	**134,542**	**97,981**	**36,551**
March	**97,981**	**50,808**	**148,789**	**100,927**	**47,837**
April	**100,927**	**46,730**	**147,657**	**100,441**	**47,161**
May	**100,441**	**49,139**	**149,580**	**109,302**	**40,183**
June	109,302	42,317	151,619	104,626	46,987
July	104,626	35,716	140,342	93,030	37,402
August	93,030	44,089	137,119	84,429	43,402
September	84,429	47,762	132,191	93,358	30,891
October	93,358	51,276	144,634	95,496	36,307
November	95,496	46,711	142,207	94,387	34,913
December	94.387	46,506	140,893	92,719	37,017
Total	.....	551,618	632,770	.....	475,551
1955					
January	92,719	44,780	137,499	84,882	40,451
February	84,882	40,173	125,055	64,938	46,645
March	64,938	50,308	115,246	59,881	42,381
April	59,881	50,274	110,155	54,956	44,878
May	54,956	45,435	100,391	50,947	46,130
June	50,947	48,150	99,097	44,665	44,985
July	44,665	23,850	68,515	39,856	26,547
August	39,856	36,912	76,768	34,111	41,469
September	34,111	50,453	84,564	30,753	46,250
October	30,753	52,747	84,500	29,913	52,062
November	29,913	52,623	82,536	28,855	51,370
December	28,855	50,448	79,303	31,089	48,171
Total	.....	547,153	639,872	.....	531,339
1956					
January	31,089	51,306	82,395	32,469	49,746
February	32,469	49,475	81,944	41,450	39,411

In instances where the figures are not in balance it is due to shipments to other than domestic consumers.

Industrial Classification of Domestic Lead Shipments

(American Bureau of Metal Statistics) (In tons of 2,000 lbs.)

	Cable	Amm.	Foil	Batt'y	Brass Making	Sundries	Jobbers	Unclassified
1950	66,646	28,854	3,304	93,297	6,374	60,118	10,450	230,594
1951	70,149	32,099	2,063	75,337	5,583	48,248	3,550	259,155
1952	74,616	30,809	1,374	77,238	5,160	50,943	5,671	246,283
1953								
Oct.	9,612	2,782	160	6,346	307	4,628	1,987	19,165
Nov.	6,920	3,352	312	4,452	385	4,876	982	21,955
Dec.	6,220	1,896	72	3,985	206	3,350	402	18,876
Total	76,283	34,415	2,136	80,339	5,716	55,936	6,390	227,222
1954								
Jan.	6,273	2,955	....	5,077	964	5,051	628	16,160
Feb.	6,040	2,170	....	5,890	798	3,682	254	17,717
Mar.	7,620	2,405	252	6,663	149	6,818	492	23,438
Apr.	6,207	2,550	361	6,341	308	5,194	342	25,798
May	6,030	2,310	276	5,635	250	4,621	1,020	20,041
June	6,116	3,700	122	5,711	406	6,525	1,114	23,293
July	4,000	1,500	...	6,690	415	4,121	861	19,608
Aug.	8,799	3,358	146	6,111	838	5,377	1,152	17,621
Sept.	4,602	1,653	564	4,110	20	4,667	851	14,424
Oct.	6,142	1,970	657	4,172	383	4,581	829	17,573
Nov.	5,816	3,795	333	3,898	520	3,202	721	16,628
Dec.	7,707	1,880	100	5,790	141	3,530	906	16,963
Total	75,412	30,246	2,811	66,088	5,192	57,369	9,170	229,264
1955								
Jan.	7,044	1,570	36	5,158	213	4,451	857	21,122
Feb.	5,869	3,200	348	6,758	289	4,796	1,013	24,373
Mar.	6,538	2,340	614	6,897	240	3,807	1,167	20,778
Apr.	5,909	2,625	201	6,533	463	5,178	1,234	22,735
May	6,145	2,950	251	8,127	321	4,435	1,145	22,756
June	6,623	950	50	6,833	290	5,175	1,293	23,816
July	2,313	150	307	4,365	100	3,763	946	14,603
Aug.	5,772	2,800	210	4,794	290	3,741	1,230	22,632
Sept.	6,552	2,295	415	7,794	354	4,711	1,149	22,980
Nov.	6,606	2,433	70	13,875	387	3,795	874	23,330
Dec.	6,275	3,260	35	7,508	449	4,289	839	25,516
Total	72,418	27,599	2,622	88,461	3,960	52,994	13,084	270,251
1956								
Jan.	7,777	3,075	200	6,555	290	8,538	917	22,394
Feb.	5,974	2,435	384	5,983	275	3,592	871	19,897

Lead Prices at New York

(Common Grade)
Monthly Average Prices
(Cents per pound)

	1953	1954	1955	1956
Jan.	14.192	13.26	15.00	16.16
Feb.	13.50	12.82	15.00	16.00
Mar.	13.404	12.94	15.00	16.00
Apr.	12.64	13.91	15.00	....
May	12.75	14.00	15.00	....
June	13.413	14.11	15.00	....
July	13.683	14.00	15.00	....
Aug.	14.00	14.06	15.00	....
Sept.	13.74	14.60	15.12	....
Oct.	13.50	14.975	15.50	....
Nov.	13.50	15.00	15.50	....
Dec.	13.50	15.00	15.56	....
Av.	13.485	14.06	15.14	....

Lead Sheet Prices

(To Jobbers, Full Sheets)
Monthly Average Prices
(Cents per pound)

	1953	1954	1955	1956
Jan.	19.192	18.26	20.00	21.16
Feb.	18.50	17.82	20.00	21.00
Mar.	18.404	17.94	20.00	21.00
Apr.	17.64	18.91	20.00	....
May	17.75	19.00	20.00	....
June	19.413	19.11	20.00	....
July	18.683	19.00	20.00	....
Aug.	19.00	19.06	20.00	....
Sept.	18.74	19.60	20.12	....
Oct.	18.50	19.975	20.50	....
Nov.	18.50	20.00	20.50	....
Dec.	18.50	20.00	20.56	....

Battery Shipments

The following table shows replacement battery shipments in the United States as compiled by the Business Information Division of Dun & Bradstreet, Inc., for the Association of American Battery Manufacturers.

(In thousands of units)

	1953	1954	1955	1956
Jan.	1,571	1,788	1,478	2,005
Feb.	1,162	1,422	1,647	1,302
Mar.	1,202	1,194	1,321	....
Apr.	1,245	1,150	1,281	....
May	1,455	1,391	1,572	....
June	2,004	1,834	1,794	....
July	2,528	2,288	2,024	....
Aug.	2,707	2,481	2,774	....
Sept.	2,852	2,728	3,039	....
Oct.	2,825	2,667	3,036	....
Nov.	2,173	2,410	2,622	....
Dec.	1,890	1,796	2,556	....
Total	23,614	23,149	25,147	.....

Lead Stocks at Primary U. S. Smelters and Refiners

(American Bureau of Metal Statistics)

(In tons of 2,000 lbs.)

	In ore and matte and in process at smelters	— In base bullion (lead content) — At smelters & refineries	In transit to refineries	In process at refineries	Refined pig lead	Anti-monial lead	Total Stocks
1953							
Jan. 1	65,771	17,583	3,105	19,759	31,405	12,155	149,778
1954							
Feb. 1	63,032	12,790	3,406	28,050	77,805	14,691	199,774
Mar. 1	63,175	12,226	4,482	28,140	83,183	14,798	206,044
Apr. 1	68,520	13,377	2,631	28,841	88,942	11,985	214,296
May 1	67,270	14,624	2,715	28,257	88,464	11,977	213,307
June 1	64,103	10,906	1,348	27,105	97,420	11,882	212,764
July 1	61,669	12,241	3,660	26,046	94,828	9,798	208,242
Aug. 1	63,093	17,196	2,592	30,301	80,820	12,210	206,212
Sept. 1	62,851	18,688	2,903	29,792	72,150	12,279	198,663
Oct. 1	63,731	18,771	4,155	29,024	79,190	14,168	209,039
Nov. 1	59,660	17,095	3,265	28,373	80,650	14,846	203,889
Dec. 1	57,452	16,888	2,570	27,816	79,814	14,573	199,113
1955							
Jan. 1	62,074	18,170	1,723	27,164	77,930	14,789	201,850
Feb. 1	59,303	15,485	3,133	29,393	69,980	14,902	192,196
Mar. 1	64,492	17,741	3,781	28,467	52,734	12,204	179,419
Apr. 1	57,577	20,063	2,309	28,564	47,496	12,385	168,394
May 1	59,686	17,468	3,496	25,373	43,207	11,749	160,979
June 1	59,632	17,705	1,941	27,979	39,892	11,055	158,204
July 1	58,182	14,707	2,941	30,579	34,432	10,233	151,074
Aug. 1	65,476	10,065	1,303	26,792	30,077	9,779	143,492
Sept. 1	75,057	17,183	3,744	29,660	26,859	7,252	159,755
Oct. 1	70,628	19,083	4,217	28,424	23,292	7,461	153,105
Nov. 1	71,257	20,682	4,276	28,596	21,828	8,085	154,724
Dec. 1	64,109	20,232	4,377	27,486	19,592	9,263	145,059
1956							
Jan. 1	71,812	16,532	3,764	27,625	21,196	9,893	150,822
Feb. 1	70,690	19,082	1,764	25,632	24,080	8,389	149,637
Mar. 1	71,023	16,406	2,583	27,519	32,355	9,095	158,981

Receipts of Lead in Ore and Scrap

By U. S. Smelters (a)

(American Bureau of Metal Statistics) (In tons of 2,000 lbs.)

	Receipts of lead in ore			Receipts of lead in scrap etc. (b)	Total receipts in ore, & scrap
	United States	Foreign	Total		
1952 Total	405,990	98,276	504,266	41,845	546,111
1953 Total	351,183	155,788	506,971	42,994	549,965
1954					
March	31,520	12,006	43,526	3,550	47,076
April	28,508	13,173	41,681	4,524	46,205
May	25,762	11,141	36,903	4,484	41,387
June	28,266	11,750	40,016	3,300	43,316
July	26,975	14,984	41,959	3,742	45,701
August	28,835	12,820	41,655	4,060	45,715
September	25,244	20,807	46,051	4,450	50,501
October	26,884	12,561	39,455	5,134	44,579
November	29,107	8,622	37,729	5,628	43,357
December	29,646	16,020	45,666	4,457	50,123
Total	336,291	158,081	494,372	49,864	544,236
1955					
January	28,767	11,502	40,269	3,509	43,778
February	27,456	17,400	44,856	2,738	47,594
March	30,056	11,104	41,160	3,291	44,451
April	28,707	16,347	45,054	3,249	48,303
May	28,511	13,377	41,888	4,879	48,767
June	28,273	14,667	42,940	4,509	47,449
July	23,027	3,826	26,853	649	27,502
August	30,249	11,859	42,108	3,942	46,050
September	29,377	14,881	44,258	3,623	47,881
October	30,073	20,845	50,918	5,655	56,573
November	27,736	13,022	40,758	3,802	44,560
December	29,363	24,136	53,499	3,150	56,649
Total	341,595	172,966	514,561	42,996	557,557
1956					
January	27,184	15,704	42,888	6,346	49,234
February	28,569	16,528	45,097	4,577	49,674

(a) Receipts of lead in ore are computed on the basis of recoverable lead. Owing to the estimational factor in this, which is probably on the low side, and also to the possibility that some lead receipts may escape attention, these monthly totals probably underrun the actual production of pig lead. (b) Inclusive only of scrap smelted in connection with ore, plus some scrap received by primary refiners.

N. Y. Lead Price Changes

(Effective Date)

1949		**1953**	
Nov.	16....12.50	Jan.	7....14.50
Nov.	21....12.00	Jan.	12....14.00
1950		Feb.	2....13.50
Mar.	9....11.00	Mar.	4....13.00
Mar.	14....10.50	Mar.	10....13.50
Apr.	20....10.75	Apr.	7....13.00
Apr.	26....11.00	Apr.	16....12.50
May	4....11.25	Apr.	21....12.00
May	10....11.50	Apr.	29....12.50
May	11....12.00	May	18....12.75
June	23....11.50	May	19....13.00
1951		May	26....13.15
June	28....11.00	June	11....13.50
July	12....11.50	July	20....13.75
July	13....12.00	July	23....14.00
Aug.	15....13.00	Sept.	16....13.50
Aug.	21....14.00	**1954**	
Sept.	1....15.00	Jan.	18....13.00
Sept.	8....16.00	Feb.	18....12.50
Oct.	2..**19.00	Mar.	9....12.75
Oct.	31....17.00	Mar.	10....13.00
1952		Mar.	26....13.25
Apr.	29....18.00	Mar.	29....13.50
May	2....17.00	Apr.	1....13.75
May	12....15.00	Apr.	12....14.00
June	23....15.50	June	2....14.25
June	24....16.00	June	15....14.00
Oct.	7....15.00	Aug.	25....14.25
Oct.	14....14.00	Sept.	7....14.50
Oct.	22....13.50	Sept.	15....14.75
Nov.	3....14.00	Oct.	4....14.875
Nov.	10....14.20	Oct.	5....15.00
Nov.	11....14.50	**1955**	
Nov.	20....14.25	Oct.	23....15.00-15.50
Nov.	24....14.00	Oct.	26....15.50
Dec.	22....14.25	Dec.	29....16.00
Dec.	29....14.50	**1956**	
Dec.	31....14.75	Jan.	4....16.50
		Jan.	13....16.00

*OPA Ceiling. †Returned to OPA Ceiling. **OPS Ceiling.

Antimonial Lead Stocks at Primary Refineries

(A. B. M. S.)

(In tons of 2,000 lbs.)

End of:	1953	1954	1955	1956
Jan.	11,572	14,691	14,902	8,389
Feb.	10,736	14,798	12,204	9,095
Mar.	11,484	11,985	12,385	.....
Apr.	11,248	11,977	11,740	.....
May	10,764	11,882	11,055	.....
June	14,335	9,798	10,233	.....
July	14,247	12,210	9,779	.....
Aug.	14,748	12,279	7,252	.....
Sept.	15,877	14,168	7,461	.....
Oct.	15,742	14,846	8,085	.....
Nov.	16,498	14,573	9,263	.....
Dec.	16,116	14,789	9,893	.....

Antimonial Lead Production by Primary Refineries

(A. B. M. S.)

(In tons of 2,000 lbs.)

End of:	1953	1954	1955	1956
Jan.	2,937	3,768	4,529	5,045
Feb.	3,682	4,257	4,777	5,888
Mar.	5,353	4,475	6,202	....
Apr.	5,027	4,470	5,343	....
May	6,497	4,373	4,737	....
June	9,270	3,796	4,792	....
July	5,259	5,991	1,153	....
Aug.	4,668	6,455	2,946	....
Sept.	5,509	5,869	6,650	....
Oct.	5,100	5,532	8,016	....
Nov.	5,400	5,364	7,985	....
Dec.	3,060	5,255	6,907	....
Total	61,762	59,875	64,037	.....

U. S. Lead Consumption

(Bureau of Mines — In Short Tons)

Metal Products	1954 Totals	1955 Prelim. Totals	1955 Dec.
Ammunition	40,206	46,816	4,147
Bearing metals	27,166	33,128	2,847
Brass and bronze	20,147	22,962	2,074
Cable covering	127,939	121,061	10,915
Calking	49,854	58,241	3,964
Casting metals	10,969	13,619	1,044
Collapsible tubes	10,736	10,205	1,020
Foil	4,448	5,185	323
Pipes, traps and bends	26,832	29,318	2,011
Sheet lead	26,014	30,403	2,589
Solder	71,122	88,307	6,686
Storage batteries (antimonial lead)	174,447	191,919	17,272
(oxides)	162,825	184,164	16,186
Terne metal	1,286	2,382	206
Type metal	25,665	25,947	2,496
Total	779,656	863,757	73,780
Pigments:			
White lead	17,704	18,548	1,413
Red lead and litharge	76,472	87,503	7,551
Pigment colors	14,062	15,000	1,040
Other†	8,171	10,931	482
Total	116,409	131,982	10,486
Chemicals:			
Tetraethyl lead	160,436	165,133	15,283
Misc. chemicals	6,748	1,432	404
Total	167,184	166,565	15,687
Misc. Uses:			
Annealing	4,653	5,072	412
Galvanizing	2,732	2,183	210
Lead plating	872	697	80
Weights and ballast	7,393	6,774	425
Total	15,650	14,726	1,127
Other Uses Unclassified	15,972	16,662	1,953
Total Reported	1,094,871	1,193,692	103,033
Estimated unreported consumption	.....	12,000	1,000
Total	1,094,871	1,205,700	104,000
Daily average‡	3,000	3,303	3,355

† Includes lead content of leaded zinc oxide production.
‡ Based on number of days in month without adjustment for Sundays or holidays.

U. K. Lead Consumption

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 pounds)

	1954	1955	1956
Jan.	25,786	29,062	31,012
Feb.	25,837	28,926	.....
Mar.	29,442	33,225	.....
Apr.	25,820	28,656	.....
May	28,637	31,092	.....
June	28,574	32,627	.....
July	25,968	26,994	.....
Aug.	25,671	26,954	.....
Sept.	30,631	34,291	.....
Oct.	30,123	34,121	.....
Nov.	30,142	34,820	.....
Dec.	28,840	29,689	.....
Total	335,887	370,794	.....

American Antimony

Monthly Average Prices in bulk, f. o. b. Laredo

(Cents per lb. in ton lots)

	1953	1954	1955	1956
Jan.	34.50	28.50	28.50	33.00
Feb.	34.50	28.50	28.50	33.00
Mar.	34.50	28.50	28.50	33.00
Apr.	34.50	28.50	28.50	....
May	34.50	28.50	28.50	....
June	34.50	28.50	28.50	....
July	34.50	28.50	28.50	....
Aug.	34.50	28.50	30.66	....
Sept.	34.50	28.50	33.00	....
Oct.	34.50	28.50	33.00	....
Nov.	33.68	28.50	33.00	....
Dec.	28.50	28.50	33.00	....
Av.	33.93	28.50	30.18	....

Consumers' Lead Stocks, Receipts and Consumption

(Bureau of Mines — In Short Tons)

	Stocks at plants on Nov. 30	Received during Dec.	Consumed during Dec.	Stocks at plants on Dec. 31
Refined soft lead	70,356	66,313	64,502	72,167
Antimonial lead	18,617	30,488	26,604	22,501
Unmelted white scrap	2,883	2,313	2,441	2,755
Percentage metals	8,257	4,672	4,953	7,976
Copper-base scrap	1,560	1,912	1,913	1,559
Drosses, residues, etc.	7,852	2,479	2,162	8,169
Total	109,525	108,177	*102,575	115,127

* Excludes 458 tons of lead contained in leaded zinc oxide production.

Consumption of Lead by Class of Product

(Bureau of Mines — In Short Tons)

December

	Soft and Antimonial Lead	Scrap, Percentage Metal, Drosses, etc.	Total
Metal products	62,469	11,311	73,780
Pigments	10,016	12	10,028
Chemicals	15,687	...	15,687
Miscellaneous	1,104	23	1,127
Unclassified	1,830	123	1,953
Total	91,106	11,469	*102,575

* Excludes 458 tons of lead contained in leaded zinc oxide production.

Lead Imports and Exports by Principal Countries

(A.B.M.S.)

Reported in pigs, bars, etc.: metric tons except where otherwise noted.

	1955 Nov.	1955 Dec.	1956 Jan.
IMPORTS			
U. S.† (s.t.)	24,798	25,153	24,555
Canada (s.t.)	6	...	...
Belgium	917	...	...
Denmark	898	1,240	778
France	4,906	4,180	6,011
Germany (W.)‡	4,634	...	...
Italy*	960	...	...
Netherlands	2,631	3,889	...
Norway	724	1,127	...
Sweden	168	875	228
Switzerland	1,226	1,789	522
U. K. (l.t.)	16,839	17,515	...
India†† (l.t.)	732	956	...
EXPORTS			
U. S.† (s.t.)	17	107	...
Canada (s.t.)	4,622	5,286	...
Belgium	5,572	..	...
Denmark	415	202	396
France	2,811	4,776	1,754
Germany (W.)‡	3,455	...	...
Netherlands	247	253	...
Switzerland	20	...	...
No. Rhodesia†† (l.t.)	1,538	840	...
Australia†† (l.t.)	17,086	...	...

French Lead Imports

(A.B.M.S.)

(In metric tons)

	1954 Jan.–Dec.	1955 Jan.–Dec.	1956 Jan.
Ore (gross weight)	85,719	108,661	8,317
Greece	693	2,083	895
Italy	300	1,376	787
Sweden	...	1,240	...
Algeria	203	3,771	...
Fr. Morocco	75,122	92,297	5,664
French Equat. Africa	8,401	6,093	...
Tunisia	...	1,801	971
Pig lead:			
Argentiferous	869	405	...
Germany W.	15	5	...
Norway	...	95	...
Morocco	600	...	...
Rhodesia	254	305	...
Non-Argentiferous	48,440	47,755	6,011
Mexico	102	...	...
Belgium	662	3,454	89
Germany W.	4,169	3,719	275
Greece	200	110	...
Norway	270	126	...
Spain	1,500	...	...
U. Kingdom	...	5	...
Yugoslavia	500	...	...
Algeria	218	282	12
Fr. Morocco	16,773	15,951	1,999
Tunisia	23,883	24,097	3,636
U. of S. Africa	100	...	...
Australia	51	3	...
Other countries	12	8	...
Antimonial lead	707	791	...

U. K. Lead Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	1954 Jan.–Dec.	1955 Jan.–Dec.*	1955 Dec.
(Gross Weight)			
Lead and lead alloys	197,543	217,717	17,515
Australia	120,395	126,530	10,585
Canada	38,638	54,928	4,150
Belgium	47	724	100
Germany (W.)	50	...	...
Yugoslavia	6,350	6,763	380
United States	13,128	6,512	...
Peru	11,968	9,748	1,150
Other			

Domestic Zinc Statistics

American Zinc Institute

Commencing with January, 1948, all regularly operating U. S. primary and secondary smelters are included in this report. Production from foreign ores also is included.

(Tons of 2,000 lbs.)

	Stock Beginning	Production	Shipments: Domestic	Shipments: Export & Drawback	Shipments: Gov't Acc't	Shipments: Total	Stock at End	Unfilled Orders at End	Daily Avg. Prod.
1950 Tl.	94,221	910,354	849,246	18,189	128,256	995,691	8,884	74,795	2,494
1950 Mo. Avg.	75,863	70,770	70,770	1,516	10,688	82,974			
1951 Tl.	8,884	931,833	836,800	32,067	39,949	918,816	21,901	50,509	2,553
1951 Mo. Avg.	77,653	69,733	69,733	3,506	3,329	76,568			
1952 Tl.	21,901	961,430	808,343	56,202	36,626	896,171	87,160	45,264	2,627
1952 Mo. Avg.	80,119	66,945	67,361	4,683	3,052	74,681			
1953									
Oct.	141,561	84,031	65,470	482	1,223	67,175	158,417	25,950	2,711
Nov.	158,417	75,891	63,617	2,848	2,220	68,685	165,623	29,437	2,530
Dec.	165,623	79,116	55,487	6,282	2,127	63,896	180,843	35,466	2,552
Total	.....	971,191	818,850	16,326	42,332	877,508	.....	.....	2,661
Monthly Avg.		80,933	68,238	1,361	3,528	73,126			2,661
1954									
Jan.	180,843	78,561	54,865	3,681	2,146	60,692	198,712	26,378	2,534
Feb.	198,712	68,020	57,781	7,179	1,778	66,738	199,994	28,943	2,429
Mar.	199,994	71,186	66,929	1,703	1,448	70,080	201,100	31,702	2,296
Apr.	201,100	70,255	67,512	977	2,489	70,616	200,740	31,702	2,342
May	200,740	73,645	61,859	670	2,037	64,566	209,828	36,624	2,376
June	209,828	71,466	72,257	2,297	5,685	80,239	201,055	33,100	2,385
July	201,124	70,749	59,167	1,475	13,214	73,846	198,027	38,899	2,282
Aug.	198,027	71,810	58,188	1,525	16,871	76,584	193,253	41,069	2,316
Sept.	193,253	60,137	64,548	1,072	12,265	77,885	175,505	48,818	2,004
Oct.	175,505	67,047	78,867	1,468	10,080	90,415	152,137	51,559	2,163
Nov.	152,137	80,119	77,074	2,477	18,066	97,617	134,639	44,042	2,671
Dec.	134,639	85,166	75,105	3,405	17,218	95,728	124,077	45,862	2,747
Total	.....	848,242	787,922	27,929	108,957	924,808			
Monthly Avg.		72,353	65,660	2,327	9,080	77,067			2,379
1955									
Jan.	124,277	86,076	70,863	2,644	19,694	93,201	117,152	57,421	2,777
Feb.	117,152	78,977	80,016	3,743	16,205	99,964	96,165	54,527	2,820
Mar.	96,165	89,179	79,720	1,828	12,959	94,507	90,837	60,057	2,877
Apr.	90,837	83,786	89,589	1,967	8,488	100,044	74,597	65,127	2,793
May	74,579	86,177	83,336	3,802	10,434	97,572	63,184	70,087	2,780
June	63,184	84,458	92,212	1,492	5,335	99,039	48,603	57,231	2,815
July	48,603	84,400	76,812	862	4,039	81,713	51,290	64,056	2,738
Aug.	51,290	84,874	87,042	885	2,153	90,080	46,084	78,632	2,738
Sept.	46,084	83,448	83,664	1,274	2,427	87,365	42,167	52,278	2,781
Oct.	42,167	89,449	85,770	36	1,942	87,748	43,868	61,746	2,886
Nov.	43,868	86,616	91,585	280	1,561	93,426	38,058	64,560	2,921
Dec.	38,058	92,578	87,010	684	1,963	89,657	40,979	72,908	2,986
Total	.....	1,031,018	1,007,619	19,496	87,200	1,114,316	.....	.....	....
Monthly Avg.		85,918	83,968	1,625	7,267	92,860			2,825
1956									
Jan.	40,979	90,313	87,723	1,084	1,155	89,962	41,330	60,717	2,913
Feb.	41,330	86,329	84,727	317	2,782	87,826	39,833	45,255	2,977
Mar.	39,833	91,690	84,204	460	6,821	91,485	40,038	53,070	2,958

U. S. Consumption of Slab Zinc

Bureau of Mines

By Industries (Short Tons)

	Galvanizers	Die Casters	Brass products	Rolled zinc	Zinc oxide & other	Total
1949 Total	348,544	197,387	84,257	55,100	17,643	702,931
1950 Total	434,094	281,385	136,451	67,779	27,656	947,365
1951 Total	386,373	266,442	141,456	64,000	28,738	887,009
1952 Total	375,563	236,022	155,311	51,508	30,885	849,289
1953						
November	29,989	21,408	9,779	3,887	2,482	67,545
December	28,785	24,272	10,758	3,631	2,827	70,273
Total	403,162	305,346	177,301	53,784	38,037	977,636
1954						
January	26,731	21,804	10,266	4,014	3,029	65,844
February	27,243	22,184	8,486	4,035	2,230	64,178
March	31,298	26,549	9,026	4,246	2,520	73,639
April	32,970	24,176	8,181	3,933	2,395	71,655
May	32,935	22,081	8,450	3,848	3,028	70,342
June	34,827	23,534	8,860	4,214	2,880	74,665
July	33,897	17,214	6,135	3,006	2,712	63,314
August	38,225	19,891	8,349	4,030	2,684	73,529
September	37,591	20,980	8,505	3,153	3,037	73,616
October	36,407	26,051	9,501	4,181	3,055	79,545
November	34,212	30,572	10,573	3,969	2,785	82,461
December	32,263	31,781	10,961	3,350	2,987	81,342
Total	398,599	286,817	107,293	45,979	33,342	876,130
1955						
January	32,638	32,863	12,313	3,754	3,151	84,719
February	31,601	31,254	10,690	3,912	2,745	80,202
March	37,648	37,682	12,718	4,635	3,305	95,988
April	36,136	36,628	11,034	3,833	3,181	90,812
May	37,471	36,926	12,404	4,203	3,409	94,413
June	37,874	32,821	13,305	5,012	3,227	92,239
July	33,433	23,910	7,017	2,832	2,897	70,589
August	38,317	30,168	10,244	5,431	3,027	87,687
September	39,181	31,804	12,672	4,185	3,507	91,849
October	40,030	35,136	13,961	4,714	3,596	97,940
November	38,116	38,616	13,455	3,952	3,636	98,275
December	37,249	36,982	15,003	3,900	3,621	96,755
1956						
January	38,148	36,554	13,097	4,442	3,665	95,906

Prime Western Zinc Prices

(East St. Louis)

Average Prices, Cents Per Pound

	1953	1954	1955	1956
Jan.	12.596	9.76	11.50	13.46
Feb.	11.48	9.375	11.50	13.50
Mar.	11.024	9.66	11.50	13.50
Apr.	11.00	10.25	11.93	....
May	11.00	10.29	12.00	....
June	11.00	10.96	12.25	....
July	11.00	11.00	12.50	....
Aug.	11.00	11.00	12.50	....
Sept.	10.18	11.44	12.96	....
Oct.	10.00	11.50	13.02	....
Nov.	10.00	11.50	13.00	....
Dec.	10.00	11.50	13.00	....
Av.	10.857	10.69	12.305	....

High Grade Zinc Prices

(Delivered)

N. Y. Monthly Averages

(Cents per pound)

	1953	1954	1955	1956
Jan.	13.946	11.11	12.85	14.81
Feb.	12.83	10.725	12.85	14.85
Mar.	12.379	11.01	12.85	14.85
Apr.	12.35	11.60	13.28	....
May	12.35	11.64	13.35	....
June	12.35	12.31	13.60	....
July	12.47*	12.35	13.85	....
Aug.	12.60	12.35	13.85	....
Sept.	11.53	12.79	14.31	....
Oct.	11.35	12.85	14.37	....
Nov.	11.35	12.85	14.36	....
Dec.	11.35	12.85	14.35	....
Av.	12.207	12.04	13.655	....

*East of Continental Divide.

U. K. Zinc Consumption

(British Bureau of Non-Ferrous Metal Statistics)

	1954	1955	1956
Jan.	25,615	29,192	29,779
Feb.	25,286	28,814	.....
Mar.	29,001	33,451	.....
Apr.	26,084	27,741	.....
May	27,551	29,237	.....
June	29,665	31,467	.....
July	23,012	23,695	.....
Aug.	22,102	23,261	.....
Sept.	30,413	30,080	.....
Oct.	28,543	29,460	.....
Nov.	27,901	31,516	.....
Dec.	29,344	28,683	.....
Total	324,517	346,597	.....

Mine Production of Zinc in United States

(U. S. Bureau of Mines)

(In short tons)

	Eastern States	Central States	Western States	Total U.S.*
1952				
Total	185,939	94,410	385,652	666,001
1953				
Total	183,612	57,300	293,818	534,730
1954				
Aug.	14,867	5,595	18,283	38,745
Sept.	13,702	5,540	14,936	34,178
Oct.	13,420	5,842	16,249	35,511
Nov.	12,500	5,280	20,558	38,338
Dec.	12,448	5,687	20,900	39,035
Total	166,487	63,100	234,942	464,539
1955				
Jan.	13,008	5,661	21,878	40,547
Feb.	13,124	5,075	21,437	39,636
Mar.	14,679	6,173	24,840	45,692
Apr.	13,767	6,074	23,436	43,277
May	13,563	5,842	25,200	44,605
June	13,840	5,652	24,044	43,536
July	13,400	5,340	22,643	41,383
Aug.	14,426	5,868	22,339	42,633
Sept.	13,830	5,834	22,490	42,154
Oct.	13,332	5,339	22,496	41,167
Nov.	12,676	5,532	21,347	39,555
Dec.	12,644	5,250	21,721	39,615
Total	162,289	67,640	273,871	503,800
1956				
Jan.	13,830	5,017	21,701	40,548
Feb.	13,920	5,235	22,720	41,875

*Includes Alaskan output in some months.

Mine Production of Lead in United States

(U. S. Bureau of Mines)

(In short tons)

	Eastern States	Central States	Western States	Total U.S.*
1951				
Ttl.	7,426	152,258	230,723	390,428
1952				
Ttl.	11,252	150,302	228,607	390,161
1953				
Ttl.	9,970	136,650	188,776	335,412
1954				
Aug.	668	11,655	14,743	27,066
Sept.	711	11,304	12,986	25,001
Oct.	692	11,826	13,237	25,755
Nov.	686	11,594	14,631	26,911
Dec.	699	11,595	14,303	26,597
Ttl.	8,608	138,940	169,804	317,352
1955				
Jan.	861	12,300	14,667	27,828
Feb.	792	12,077	14,558	27,427
Mar.	887	13,187	17,241	31,315
Apr.	940	12,417	15,329	28,686
May	987	12,037	15,908	28,932
June	900	11,918	15,609	28,427
July	828	10,925	14,030	25,783
Aug.	821	12,109	13,883	26,813
Sept.	906	11,676	14,294	26,876
Oct.	924	11,635	15,005	27,564
Nov.	762	11,731	13,482	25,975
Dec.	771	13,628	13,403	27,802
Ttl.	10,379	145,640	177,409	333,409
1956				
Jan.	780	11,678	14,518	26,976

*Includes Alaskan output in some months.

Mine Production of Recoverable Silver in United States

(U. S. Bureau of Mines)

(In Fine Ounces)

	Eastern States	Missouri	Western States	Alaska*	Total
1953 Total	158,707	223,500	36,354,685	39,111	36,776,003
1954					
November	12,957	23,655	2,949,605	2,936	2,989,153
December	12,475	23,655	3,001,230	1,500	3,038,860
Total	142,180	283,600	36,121,368	35,140	36,582,288
1955					
January	20,618	36,385	2,988,704	12	3,045,719
February	11,882	37,040	2,951,241	7	3,000,170
March	15,987	39,770	3,570,772	413	3,626,942
April	10,540	36,590	3,238,813	1	3,285,944
May	13,086	35,539	3,381,060	1,062	3,430,747
June	13,592	35,350	3,033,664	2,591	3,085,197
July	9,997	32,910	2,331,064	5,098	2,379,069
August	12,360	38,100	2,723,552	5,477	2,779,489
September	11,517	37,180	2,927,151	6,954	2,982,802
October	15,152	35,540	3,145,297	6,704	3,202,693
November	12,476	36,040	2,963,360	4,735	3,016,611
December	11,831	37,556	2,849,045	750	2,899,182
Total	159,038	438,000	36,103,723	33,804	36,734,565
1956					
January	4,664	30,880	2,875,691	316	2,911,551

*Alaska totals based on mint and smelter receipts.

**Includes a total of 3,708 oz. from Illinois.

Production of Primary Aluminum in the U. S.*

(U. S. Bureau of Mines)

(In short tons)

	1949	1950	1951	1952	1953	1954	1955	1956
Jan.	54,536	50,023	67,954	76,934	89,895	116,247	128,203	140,394
Feb.	49,749	54,493	62,740	72,374	92,649	110,483	116,236	132,762
Mar.	54,852	58,747	70,022	77,069	104,460	122,339	130,272	145,638
Apr.	54,076	58,024	67,701	76,880	102,071	120,434	126,394	.....
May	56,909	51,929	67,720	80,803	105,464	125,138	131,128	.....
June	54,184	60,400	67,454	77,476	104,152	120,758	127,634	.....
July	55,777	63,518	72,698	78,368	109,285	126,161	132,669	.....
Aug.	52,001	63,006	73,816	85,175	110,545	125,296	133,551	.....
Sept.	49,742	54,449	69,429	76,882	109,333	120,332	130,606	.....
Oct.	45,790	62,915	72,647	77,312	108,219	125,089	134,655	.....
Nov.	35,865	62,276	72,246	74,639	105,636	121,252	133,689	.....
Dec.	34,161	65,897	72,454	83,419	110,291	127,056	140,748	.....
Total	603,462	718,622	836,881	937,330	1,252,013	1,460,565	1,565,721	.....

*Based on producers' reports to War Production Board to July, 1946. Thereafter to Bureau of Mines. The monthly figures are preliminary in nature and will not add to the totals derived from the Bureau's annual industry canvass.

Mine Production of Gold in United States

(U. S. Bureau of Mines)

(In fine ounces)

	Eastern States	Western States	Alaska*	Total
1952				
Ttl.	1,948	1,650,660	233,428	1,886,036
1953				
Ttl	1,529	1,689,668	273,479	1,964,676
1954				
Aug.	151	119,028	44,708	163,887
Sept.	160	129,726	46,104	175,990
Oct.	172	126,029	36,476	167,677
Nov.	184	129,352	21,853	151,389
Dec.	173	131,960	10,000	142,133
Ttl.	1,731	1,577,216	252,794	1,831,741
1955				
Jan.	208	138,773	58	139,039
Feb.	156	134,363	72	134,591
Mar.	203	147,862	2,674	150,739
Apr.	162	145,103	15	145,280
May	144	147,595	7,287	155,026
June	156	139,993	20,668	160,817
July	140	92,322	39,661	132,123
Aug.	171	119,327	40,931	160,429
Sept.	170	139,811	52,153	192,134
Oct.	182	140,812	43,486	184,480
Nov.	168	144,837	35,530	180,535
Dec.	166	143,827	5,000	148,993
Ttl.	2,026	1,634,625	247,535	1,884,186

*Alaska totals based on mint and smelter receipts.

U. S. Silver Production*

(A.B.M.S.)

(In thousands of ounces; commercial bars, 0.999 fine, and other refined forms)

	Dom.†	For.	Total
1952 Total	40,245	36,653	76,898
1953 Total	34,697	37,764	72,461
1954			
September	2,840	3,797	6,637
October	3,117	3,126	6,243
November	3,366	2,859	6,225
December	3,169	3,453	6,622
Total	38,059	39,422	77,481
1955			
January	3,416	3,125	6,541
February	2,753	2,851	5,604
March	3,560	2,780	6,340
Apr.	3,068	2,896	5,964
May	3,075	2,224	5,299
June	3,089	3,134	6,223
July	596	930	1,526
August	2,005	1,669	3,674
September	2,840	2,855	5,695
October	2,432	3,889	6,321
November	3,087	2,775	5,862
December	3,180	3,652	6,832
Total	33,101	32,780	65,881
1956			
January	3,249	4,159	7,408
February	3,615	4,033	7,648

* The separation between silver of foreign and domestic origin on the basis of refined bars and other refined forms is only approximate.

† Includes purchases of crude silver by the U. S. Mint.

Average Silver Prices

(Cents per fine ounce)

	1953	1954	1955	1956
Jan.	84.44	85.25	85.25	90.357
Feb.	85.25	85.25	85.25	90.90
Mar.	85.25	85.25	85.25	91.138
Apr.	85.25	85.25	87.08	....
May	85.25	85.25	88.928	....
June	85.25	85.25	89.71	....
July	82.25	85.25	90.49	....
Aug.	85.25	85.25	90.75	....
Sept.	85.25	85.25	90.795	....
Oct.	85.25	85.25	91.794	....
Nov.	85.25	85.25	91.46	....
Dec.	85.25	85.25	90.45	....
Ave.	85.183	85.25	89.116	....

Note — The averages are based on the price of refined bullion imported on or after August 31, 1942.

U. S. Copper Imports

(A.B.M.S.) (Bureau of the Census)
(In tons of 2,000 lbs.)

	1955 Nov.	1955 Dec.	1956 Jan.
Ore, matte & reg. (cont.)	11,438	11,489	7,937
Canada	2,060	1,499	1,745
Mexico	740	792	1,169
Cuba	1,631	1,622	94
Bolivia	1,069	214	59
Chile	2,300	1,652	2,063
Peru	1,128	1,870	398
Philippines	1,282	1,263	1,119
U. of S. Africa	530	2,446	1,032
Australia	667	116	258
Other countries	31	15	...
Blister copper (content)	22,830	23,841	9,512
Mexico	4,399	1,781	2,849
Chile	12,981	11,948	4,250
Peru	648	1,229	472
Belg. Congo	...	546	551
N. Rhodesia	3,060	8,337	1,390
Australia	1,742	...	...
Refined cathodes and shapes	20,876	20,682	13,508
Canada	6,970	7,785	8,220
Mexico	496	1,171	...
Chile	8,965	6,566	2,060
Peru	2,482	1,857	1,180
Belgium	116	...	...
Germany (W.)	113	55	...
Netherlands	389	...	...
Norway	...	...	750
Sweden	...	...	112
U. Kingdom	674	336	587
Yugoslavia	330	165	...
Belg. Congo	...	1,050	599
N. Rhodesia	...	1,680	...
U. of S. Africa	314	...	...
Other countries	27	17	...
Total Imports:			
Crude & ref.	55,144	56,012	30,957
Rolls, sheets or rods	2,005	1,123	760
Old and scrap (content)	1,220	996	588
Composition metal (cont.)	14	2	35
Brass scrap & old (cu. cont.)	766	1,042	700

U. S. Zinc Exports

(A. B. M. S.)

(Bureau of the Census; in tons of 2,000 lbs.)

	Jan.–Dec. 1955	Dec. 1955	Jan. 1956
Slabs, blocks, etc.	17,888	684	1,103
Canada	8	....	....
Mexico	785	36	36
Argentina	6,063	....	....
Brazil	35	32	32
Chile	5	....	5
Belgium	3,220	168	....
U. Kingdom	7,504	448	1,008
Korea	132	....	....
Other countries	135	....	22
Scrap: Ashes, dross and skimmings	21,611	1,195	1,317
Rolled in sheets, plates & strips	2,606	190	389*
Alloys ex brass and bronze	207	13	....
Die castings	843	92	....
Battery sheets & parts, unassembled	565	49	....

* Zinc and zinc alloy, semifabricated forms, not elsewhere classified.

U. S. Copper Exports

(A. B. M. S.)
(Bureau of the Census; in tons of 2,000 lbs.)

	Jan.–Dec. 1955	Dec. 1955	Jan. 1956
Ore, conc., matte and other unref. (cont.)	7,398	258	....
Refined ingots, bars, etc. (a)	199,707	14,728	13,301
Canada	1,155	46	267
Argentina	2,976	331	....
Brazil	8,907	654	207
Austria	1,262	167	56
Belgium	1,155	19	24
Denmark	270	....	....
France	65,062	4,616	5,885
Germany (W.)	35,139	3,220	1,706
Italy	9,660	1,566	279
Netherlands	16,224	1,925	1,792
Norway	2,576	280	280
Sweden	6,449	392	....
Switzerland	8,685	337	854
U. Kingdom	28,091	518	1,167
Formosa	187	....	....
India	4,831	536	752
Japan	183	117	32
Australia	6,264	....	....
Other countries	631	2	....
Total Exports:			
Crude & ref.	207,105	14,986	13,301
Pipes & tubes	1,290	147	193*
Plates & sheets	542	76	....
Rods	202	9	....
Brush-copper, castings, rolls, segments (finished forms) n.e.s.	234	15	....
Wire, bare	6,975	1,117	537
Building wire & cable (b)	4,172	473	361
Weatherproof wire (b)	737	55	83
Insulated copper wire n.e.s. (b)	14,195	1,001	1,299

U. S. Lead Exports

(A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)

	1954 Jan.–Dec.	1955 Jan.–Dec.	1955 Dec.
Lead ore, conc., matte and base bullion (cont.)	102	14	10
Canada	18	2	...
Mexico	...	10	...
Japan	84	...	...
Other countries	...	10	10
Pigs and bars	596	402	107
Canada	18	6	...
Cuba	23	21	5
Costa Rica	4	...	...
Dominican Rep.	17	11	...
Guatemala	33	...	...
Brazil	44	...	...
Chile	98	75	3
Colombia	20	27	8
Venezuela	27	30	...
Philippines	192	96	54
Other countries	120	136	37
Total Exports:			
Ore, base bullion, ref.	698	416	117
Sheets and pipes	373	558	20
Typemetal	426	427	11
Antimonial	201	405	38
Scrap	3,894	2,983	172

Comparative Metal Prices

	Av. 1939	OPA 1946	1956 Apr. 19
Copper, Domestic (Electro, Del Valley)	11.20	14.375	46.00-48.00
Lead (N. Y.)	5.05	8.25	16.00
P. W. Zinc (E. St. Louis, f. o. b.	5.05	5.05	13.50
New York, del.	....	....	14.00
Tin, Spot Straits, N. Y.	....	....	98.875
Aluminum Ingot 99%+	20.00	15.00	25.90
Antimony (R.M.M. brand, f. o. b. Laredo)	12.36	14.50	33.00

U. S. Lead Imports

(A.E.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)

	1955 Nov.	1955 Dec.	1956 Jan.
Ore, matte, etc. (cont.)	15,537	25,084	19,394
Canada	5,250	1,706	5,529
Mexico	90	257	268
Guatemala	274	959	695
Honduras	151	153	324
Bolivia	680	2,240	907
Chile	...	234	...
Peru	2,862	8,001	5,946
U. of S. Africa	1,609	7,919	2,918
Australia	4,258	3,391	2,442
Philippines	337	221	149
Other countries	26	3	40
Korea	...	...	176
Pigs and bars	24,798	25,153	24,555
Canada	1,202	1,807	1,983
Mexico	13,225	11,565	7,890
Peru	2,612	1,249	4,000
Belgium	...	...	259
Denmark	331	222	279
Germany	...	168	168
Spain	551	550	110
U. Kingdom	...	...	109
Yugoslavia	1,929	4,794	2,039
Fr. Morocco	...	...	551
Australia	4,948	4,798	7,056
Other countries	...	...	111
Total Imports:			
Ore, base bullion, ref.	40,335	50,237	43,949
Lead scrap, dross, etc. (cont.)	2,270	1,897	2,236
Antimonial lead & typemetal	2,145	1,881	524
Lead content thereof	1,996	1,791	489

U. S. Zinc Imports

(A.B.M.S.) (Bureau of the Census)

(In tons of 2,000 lbs.)

	1955 Nov.	1955 Dec.	1956 Jan.
Zinc ore (content)	42,700	49,208	44,749
Canada	18,692	18,751	13,990
Mexico	15,694	15,453	14,453
Cuba	91	73	177
Guatemala	826	935	526
Honduras	120	131	308
Bolivia	18	601	988
Chile	1,025	1,312	...
Peru	5,299	6,374	13,380
U. of S. Africa	191	1,157	409
Australia	629	2,054	458
Philippines	109	66	26
Other countries	6	2,301	34
Zinc blocks, pigs, etc.	20,627	17,967	18,650
Canada	10,310	8,492	9,798
Mexico	2,746	2,505	1,662
Peru	1,074	483	...
Belgium	1,806	2,800	3,142
Germany (W.)	1,668	446	332
Italy	1,191	584	552
Netherlands	884	110	331
U. Kingdom	..	56	112
Belg. Congo	948	2,491	1,141
Other countries	...	...	1,580
Total Imports:			
Zinc ore, blocks, pigs	63,327	67,175	63,399
Dross and skimmings	6	...	...
Old & worn out	6	2	43

World Production of Copper

(American Bureau of Metal Statistics)

(In Tons of 2,000 Pounds)

	United States (a)	Canada (b)	Mexico (crude) (c)	Chile (d)	Peru (d)	Fed. Rep. of Germany (e)	Norway (f)	United Kingdom (g-h)	Yugo-slavia (c)	India (f-h)	Japan (e)	Turkey (f)	Aus-tralia (e)	Northern Rho-desia (c)	Union of South Africa (d)
1951															
Total	964,589	269,971	60,511	396,937	25,495	234,647	.....	.....	.....	....	100,254	....	16,984	349,667	36,104
1952															
Total	961,886	258,868	60,874	422,493	22,640	206,747	11,206	163,968	36,176	7,009	104,060	2,546	21,119	336,883	37,459
1953															
Total	957,318	253,652	63,380	371,742	25,803	233,330	13,306	108,604	34,381	5,709	100,381	25,641	37,080	382,884	38,241
1954															
Oct.	69,243	27,365	4,751	36,603	2,589	22,182	1,296	10,396	2,790	756	9,008	....	3,469	33,466	3,373
Nov.	88,785	26,167	5,418	29,832	2,407	21,241	1,168	9,649	2,677	728	8,322	....	3,552	32,282	3,519
Dec.	85,581	27,528	4,441	35,890	2,764	22,336	1,240	15,842	2,822	740	9,451	....	2,570	32,321	4,222
Total	863,721	302,984	59,030	372,814	29,233	258,259	14,205	152,858	33,394	8,274	117,371	27,727	42,241	386,577	43,153
1955															
Jan.	86,931	26,303	5,386	38,899	2,560	22,635	968	9,156	2,351	389	9,532	1,739	1,906	7,926	3,245
Feb.	89,078	25,088	4,495	38,630	2,400	22,171	1,031	10,712	2,175	700	10,099	2,159	4,744	16,597	3,341
Mar.	98,171	26,701	4,362	38,341	1,950	25,449	1,216	14,274	2,383	780	11,392	2,265	5,935	28,936	4,063
Apr.	93,669	25,202	4,946	38,510	2,434	24,951	1,297	8,355	2,252	740	10,906	1,335	4,114	33,467	4,468
May	95,042	25,718	4,677	38,735	2,616	24,642	1,236	11,772	2,487	743	8,096	1,953	4,501	35,301	4,639
June	90,645	27,465	5,402	38,164	2,635	23,639	1,433	14,837	3,045	718	5,655	2,252	4,308	35,166	2,709
July	31,846	26,481	5,425	35,081	2,738	23,841	1,228	9,418	3,200	717	10,810	2,305	4,300	34,306	4,548
Aug.	67,990	27,844	4,829	36,949	2,613	24,944	1,231	10,946	2,976	763	11,623	1,623	4,760	28,942	4,737
Sept.	96,343	27,502	4,745	30,914	2,544	24,096	1,479	11,396	2,793	682	11,657	....	....	33,087	4,411
Oct.	99,514	27,783	5,816	37,427	2,055	23,317	1,439	10,806	2,151	694	11,543	2,552	3,770	36,149	4,368
Nov.	94,287	27,392	5,999	40,699	2,554	24,143	1,308	12,728	2,544	782	11,868	....	4,826	28,749	3,844
Dec.	93,186	31,007	5,501	19,232	2,610	22,973	1,010	13,871	2,794	814	11,872	....	....	31,676	....
1956															
Jan.	96,732	.....	6,040	30,475	593	23,899	....	13,597	....	456	11,133	....	....	32,887	....
Feb.	89,491	.....	4,965	.....	2,492	.....	....	.....	....	....	11,029	....	....	33,545	....

(a) Reported by Copper Institute. Crude, "recoverable contents of mine production or smelter production or shipments, and custom intake". Does not include intake of scrap nor of imported ore except that received from Cuba and Philippines. (b) Blister copper plus recoverable copper in concentrates, matte, ect., exported. (c) Crude copper, i. e., copper content of blister or converter copper as originally produced in the several countries, although some of it may be refined at home; e. g., in Rhodesia. (d) Blister and/or refined. (e) Refined. There are quantities of scrap included in the electrolytic production in addition to that reported, tonnage of which is not obtainable. (f) Smelter production. (g) Refinery production from imported blister only. (h) British Bureau of Non-Ferrous Metal Statistics. *Refined.

World Production of Refined Lead

(American Bureau of Metal Statistics)

(In Tons of 2,000 Pounds)

	United States	Canada	Mexico	Peru	Belgium	France	Fed. Rep. of Germany	Italy	Spain	Yugo-slavia	Japan	Aus-tralia (a)	French Moroco	Tunisia	Rho-desia	Total
1951																
Total	486,874	162,712	219,352	48,824	77,873	53,831	170,766	39,683	45,460	.....	18,516	217,301	20,287	25,476	15,646	1,602,601
1952																
Total	532,778	183,389	248,551	53,536	83,139	59,607	152,751	38,504	46,060	74,053	20,382	217,293	31,224	28,264	14,112	1,783,643
1953																
Total	533,883	166,356	225,075	66,520	84,162	60,887	164,077	40,786	53,799	78,038	25,513	241,419	29,970	30,397	12,891	1,813,773
1954																
Oct.	51,276	17,818	19,714	5,718	7,081	6,709	15,066	3,904	4,719	5,512	2,150	20,300	3,144	1,998	1,120	167,329
Nov.	46,711	15,800	20,511	5,450	7,067	6,383	15,992	3,994	4,383	6,706	2,856	21,551	1,480	2,654	1,232	162,770
Dec.	46,506	15,689	21,497	5,946	7,062	6,480	13,676	4,071	5,056	7,950	3,579	22,768	364	2,578	1,008	164,230
Total	551,618	166,379	231,595	63,735	79,260	71,033	162,773	41,150	62,475	73,555	37,612	260,424	29,417	30,015	16,800	1,877,841
1955																
Jan.	44,780	12,822	19,066	4,416	7,014	5,627	12,163	4,095	5,293	7,104	3,355	23,570	4,946	3,029	1,540	158,826
Feb.	40,173	12,899	17,442	5,325	6,999	6,023	12,606	4,473	6,453	7,142	3,644	16,156	4,566	2,261	980	147,142
Mar.	50,308	14,332	19,995	5,978	7,102	6,850	14,512	4,304	5,771	6,994	3,395	17,182	1,004	2,355	672	160,754
Apr.	50,274	13,615	16,730	5,294	6,737	5,855	13,713	2,583	5,078	6,787	3,411	22,368	....	2,134	1,792	156,371
May	45,435	13,886	21,340	5,364	6,642	7,601	13,676	3,200	6,254	6,334	2,314	26,531	2,025	1,192	1,792	163,586
June	48,133	14,061	18,189	5,442	6,249	7,068	11,363	3,169	5,929	7,288	2,087	21,427	4,957	1,903	1,680	158,678
July	23,850	7,237	17,255	5,598	7,120	3,108	10,077	4,117	4,844	7,758	3,724	15,930	3,746	2,231	1,680	118,347
Aug.	36,912	11,492	19,301	5,529	7,638	4,826	10,345	2,579	4,357	7,047	3,860	23,682	2,976	2,541	1,680	144,655
Sept.	50,453	14,323	18,382	5,323	9,032	6,558	13,910	3,805	6,421	5,687	3,851	25,833	3,236	2,706	1,680	171,200
Oct.	53,747	15,326	17,225	5,760	8,777	7,044	15,387	4,828	5,709	6,260	3,579	21,946	....	1,944	1,568	169,100
Nov.	52,623	12,587	17,576	5,473	8,468	5,891	17,503	3,741	6,133	7,799	3,785	18,820	....	2,535	1,456	164,390
Dec.	50,448	12,553	18,637	7,038	8,030	6,730	16,806	4,031	5,267	7,208	3,946	21,113	1,414	3,790	1,456	168,467
1956																
Jan.	51,306	.....	17,587	1,730	8,731	7,014	16,218	3,778	5,399	....	3,929	.....	4,967	2,070	1,456	.....
Feb.	49,475	.....	16,510	6,497	.....	.....	.....	.....	.....	.....	4,227	.....	....	....	1,232	.....

(a) Production credited to Australia includes lead refined in England from Australian base bullion.

World Production of Slab Zinc

(American Bureau of Metal Statistics)

(In Tons of 2,000 Pounds)

	United States (a)	Can. (b)	Mexico	Peru (b-c)	Belgium	France (a)	Fed. Rep. of Germany	Great Britain	Italy	Nether-lands	Norway (b)	Spain	Yugo-slovia	Japan (a)	Aus-tralia (b)	Rho-desia (b)	Total (d)
1951																	
Total	931,833	218,548	57,990	1,003	220,479	82,184	155,024	78,101	52,058	24,924	44,971	23,444	....	62,109	88,103	25,301	2,065,216
1952																	
Total	961,430	223,140	61,456	5,491	205,909	88,255	162,272	76,981	60,438	28,555	43,061	23,329	15,943	77,203	97,931	25,687	2,141,088
1953																	
Total	971,191	247,707	59,589	9,819	213,215	99,218	163,430	81,434	65,780	27,721	42,566	24,152	16,037	86,823	101,003	28,370	2,228,017
1954																	
Oct.	67,947	18,371	5,241	1,272	19,391	11,107	15,739	7,196	6,859	2,417	4,166	2,237	1,445	9,944	9,902	2,296	185,130
Nov.	80,116	19,622	5,061	1,754	19,208	10,603	15,335	6,891	6,510	2,438	3,850	2,132	1,470	8,699	9,552	2,072	195,319
Dec.	85,164	21,923	5,222	978	19,269	10,607	16,261	8,595	6,237	2,497	3,663	2,317	1,350	10,011	9,740	2,604	206,438
Total	868,242	213,810	60,477	16,982	234,896	122,248	184,806	90,987	74,356	28,686	48,768	25,109	15,040	112,292	117,066	29,736	2,243,501
1955																	
Jan.	86,106	22,028	5,309	1,852	19,323	10,894	16,078	7,251	5,532	2,412	3,988	2,246	1,246	9,905	9,891	2,660	206,691
Feb	78,977	19,865	4,737	1,612	18,739	10,244	14,723	7,372	5,663	2,216	3,988	1,930	1,221	8,792	8,745	2,660	190,548
Mar.	89,179	22,216	5,291	2,057	19,096	11,275	16,867	9,031	6,879	2,422	3,165	2,003	1,457	10,863	9,378	2,744	213,923
Apr.	83,786	21,301	5,136	1,770	19,279	10,582	16,409	7,392	6,393	2,519	4,168	2,198	1,421	10,750	7,737	2,632	203,473
May	86,177	21,600	5,271	1,870	20,230	11,219	16,985	6,870	6,639	2,609	4,460	2,337	1,369	7,639	8,508	2,688	206,521
June	84,458	20,565	5,173	2,124	19,837	10,715	16,476	6,480	6,480	2,628	3,854	2,227	1,285	7,141	8,837	2,604	202,444
July	84,400	21,769	5,297	1,725	19,561	10,463	16,918	5,902	6,802	2,737	4,238	2,251	1,338	11,223	10,413	2,660	207,697
Aug.	84,877	22,029	5,168	1,880	19,190	10,185	16,566	6,751	7,088	2,529	4,422	2,197	1,175	11,012	10,089	2,576	207,731
Sept.	83,448	20,898	4,967	1,754	18,863	7,603	16,496	8,609	6,323	2,621	4,451	2,121	1,198	11,227	9,817	2,464	202,860
Oct.	89,449	22,206	5,212	1,545	19,345	10,262	16,735	6,940	6,906	2,735	4,704	2,243	1,176	11,644	9,972	2,604	213,678
Nov.	87,616	21,398	5,066	818	19,244	9,848	15,708	7,442	6,183	2,846	4,501	2,185	1,142	11,600	9,860	2,576	208,033
Dec.	92,578	21,135	5,252	....	20,079	10,332	17,061	9,316	6,429	2,886	4,492	2,258	1,147	11,654	9,972	2,632	217,714
1956																	
Jan.	90,313	21,696	5,279	....	20,359	11,756	16,827	6,768	6,315	2,786	4,345	2,217	....	15,928	....	2,632	.....
Feb.	86,329	20,356	4,949	963	.....	.....	.....	7,684	....	....	3,961	....	....	10,337	....	2,688	.....

(a) Partially electrolytic. (b) Entirely electrolytic. (c) Beginning 1954 both electrolytic and electrothemic. (d) The above totals omits production in Russia, Czechoslovakia, Poland and in Argentina.

U. K. Virgin Copper Stocks

(In long tons)

British Bureau of Non-Ferrous Metal Statistics

At start of:	1954	1955	1956
Jan.	55,344	61,480	76,197
Feb.	60,402	62,771	79,377
Mar.	60,084	70,185	.....
Apr.	47,258	67,566	.....
May	60,118	60,767	.....
June	65,314	58,546	.....
July	68,037	64,256	.....
Aug.	67,307	99,628	.....
Sept.	77,323	107,261	.....
Oct.	72,266	93,681	.....
Nov.	61,484	75,533	.....
Dec.	61,673	77,749	.....

U. K. Refined Lead Stocks

British Bureau of Non-Ferrous Metal Statistics

(In long tons)

At start of:	1954	1955	1956
Jan.	26,887	31,173	40,987
Feb.	32,653	32,274	34,326
Mar.	30,697	39,461	.....
Apr.	28,312	37,587	.....
May	30,005	45,226	.....
June	29,793	38,760	.....
July	30,437	30,816	.....
Aug.	29,492	32,270	.....
Sept.	26,298	48,036	.....
Oct.	28,958	42,912	.....
Nov.	22,269	42,061	.....
Dec.	26,937	38,410	.....

U. K. Stocks of Zinc

British Bureau of Non-Ferrous Metal Statistics

(In tons of 2,240 lbs.)

At start of:	Virgin Zinc		Zinc. Conc.	
	1955	1956	1955	1956
Jan.	49,962	49,962	47,200	54,447
Feb.	48,027	45,239	43,779	49,537
Mar.	45,679	.....	44,176	.....
Apr.	49,301	.....	51,603	.....
May	53,573	.....	47,741	.....
June	50,447	.....	47,791	.....
July	48,227	.....	47,399	.....
Aug.	54,562	.....	50,649	.....
Sept.	60,935	.....	55,350	.....
Oct.	60,800	.....	55,234	.....
Nov.	54,679	.....	60,065	.....
Dec.	50,678	.....	58,414	.....

U. K. Copper Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	1954 Jan.–Dec.	1955 Jan.–Dec.*	1955 Dec.
(Gross Weight)			
Copper and copper alloys	400,899	411,894	34,962
Union of So. Africa	2,875	1,464	25
N. Rhodesia	236,762	216,329	21,124
Canada	64,530	66,097	5,453
Belgium	14,564	6,898	340
Germany (W.)	12,059	7,884	16
Norway	1,186	†	†
Sweden	552	†	†
United States	20,659	29,501	458
Chile	35,009	58,939	4,600
Belg. Congo	†	5,075	875
Other countries	12,703	19,707	2,071
Of which:			
Electrolytic	250,323	255,698	21,463
Other refined	17,567	31,079	2,775
Blister or rough	132,678	121,874	10,539
Wrought and alloys	331	3,243	185
Total	400,899	411,894	34,962

Copper Consumption in United Kingdom

British Bureau of Non-Ferrous Metal Statistics

(In tons of 2,240 pounds)

	Unalloyed	Alloyed*	Sulphate	Total	Virgin	Scrap
1953 Total	243,717	192,337	11,206	447,260	322,311	124,949
1954						
September	32,098	21,731	1,137	54,966	43,070	11,896
October	30,603	22,716	....	53,319	40,664	12,655
November	31,239	21,143	....	52,382	42,846	9,536
December	30,570	22,962	....	53,496	41,053	12,437
Total	328,149	251,989	....	580,138	448,413	131,725
1955						
January	28,636	22,582	....	51,218	39,705	11,513
February	27,607	23,098	....	50,705	36,906	13,799
March	31,901	25,894	....	57,795	41,083	16,712
April	26,101	22,045	....	48,146	36,008	12,138
May	31,107	23,297	....	54,404	39,485	14,919
June	36,163	23,904	....	60,067	45,367	14,700
July	26,601	19,698	....	46,299	31,749	14,550
August	24,731	18,390	....	43,121	33,255	9,866
September	36,286	24,007	....	60,293	47,180	13,113
October	36,309	25,276	....	61,585	47,519	14,066
November	35,791	25,854	....	61,645	48,690	12,955
December	32,953	23,108	....	56,061	41,130	14,931
Total	377,576	281,953	....	659,529	496,467	163,062
1956						
January	34,567	24,461	....	59,028	45,676	13,351

*Includes copper sulphate effective October, 1954.

U. K. Zinc Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	1954 Jan.–Dec.	1955 Jan.–Dec.*	1955 Dec.
(Gross Weight)			
Zinc ore and conc.**	192,912	201,982	7,424
Australia	134,095	...	...
Canada	13,857	...	...
Other countries	44,960	...	...
Zinc conc.‡	101,677	†	†
Australia	73,317	...	...
Canada	8,071	...	...
Burma	16,123	...	...
Italy	4,166	...	...
Zinc and zinc alloys	155,176	161,582	11,672
N. Rhodesia	6,862	5,778	815
Australia	15,184	10,595	1,800
Canada	73,271	90,885	5,236
Belgium	18,289	11,785	1,780
Germany, W.	48	5,017	1
Netherlands	1,868	2,601	203
Norway	1,734	730	200
United States	27,683	9,265	...
Other countries	10,237	24,926	1,637
Of which:			
Zinc or spelter, unwrought in ingots, blocks, bars, slabs & cakes	154,379	160,423	11,553
Other	797	1,159	119
Total	155,176	161,582	11,672

Zinc Imports and Exports by Principal Countries

(A.B.M.S.)

Reported in pigs, bars, etc.: metric tons except where otherwise noted.

	1955 Nov.	1955 Dec.	1956 Jan.
IMPORTS			
U. S. (s.t.)	20,627	17,967	18,650
Canada (s.t.)	7	...	...
Belgium	51	...	...
Denmark	486	689	390
France	714	1,600	1,360
Germany (W.)†	5,100	...	...
Italy	647	...	...
Netherlands	414	1,076	...
Sweden	2,234	2,355	2,735
Switzerland†	1,590	1,119	1,818
U. K. (l.t.)	10,970	11,672	...
India* (l.t.)	2,050	696	...
EXPORTS			
U. S. (s.t.)	151	684	1,103
Canada (s.t.)	14,164	14,607	...
Belgium	10,944	...	...
France	37	...	...
Germany (W.)†	3,037	...	...
Italy	1,615	...	...
Netherlands	762	1,891	...
Norway	3,681	2,998	...
Switzerland†	292	408	786
U. K.‡ (l.t.)	332	314	...
No. Rhodesia* (l.t.)	2,596	2,259	1,968
Australia* (l.t.)	1,989	...	...

† Includes scrap.
‡ Includes manufactures.
* British Bureau of Non-Ferrous Metal Statistics.

United Kingdom Tin Statistics

(British Bureau of Non-Ferrous Metal Statistics)

	Tin Content of Tin in Ore			Tin Metal				
	Imports	Production*	Stock at end of period*	Imports	Production*	Consumption	Exports & Re-exports	Stock at end of period
1954								
October	1,901	74	1,587	0	2,203	1,790	472	4,425
November	2,574	63	2,086	177	2,136	1,928	561	4,194
December	2,535	76	2,473	429	2,234	1,952	368	4,347
1955								
January	1,907	70	1,984	311	2,211	1,821	701	4,353
February	1,952	86	2,321	185	2,648	1,843	372	4,821
March	3,229	97	2,753	...	2,648	2,180	648	4,706
April	2,133	87	3,550	56	966	1,794	532	4,026
May	2,100	81	2,962	...	2,493	1,840	811	3,742
June	898	96	1,119	21	2,595	1,997	363	3,280
July	4,006	95	2,700	3	2,201	1,615	1,581	3,232
August	2,163	78	2,300	10	2,545	1,576	733	3,612
September	1,738	97	1,800	15	2,283	1,920	981	3,053
October	2,245	90	2,000	85	2,197	1,866	1,097	2,363
November	3,034	...	....	436	....	2,081	577	2,935

*As reported by International Tin Study Group. Production of Tin Metal includes production from imported scrap and residues refined on toll. Stocks exclude strategic stock but include official warehouse stocks.

Canada's Copper Output

(Dominion Bureau of Statistics)

(Refined Copper)
(In Tons)

	1953	1954	1955	1956
Jan.	21,830	15,001	22,678	26,739
Feb.	21,075	13,954	21,533	.....
Mar.	22,432	21,075	25,181	.....
Apr.	21,747	20,412	24,221	.....
May	20,179	23,012	23,921	.....
June	18,384	23,344	21,981	.....
July	19,996	21,582	21,286	.....
Aug.	19,886	22,000	26,424	.....
Sept.	16,777	22,684	24,943	.....
Oct.	17,675	21,661	25,658	.....
Nov.	17,101	22,981	25,340	.....
Dec.	18,703	24,935	27,312	.....
Year	235,787	252,643	290,478	.....

Canada's Lead Exports

(Dominion Bureau of Statistics)

(In Pigs)
(In Tons)

	1953	1954	1955	1956
Jan.	11,212	6,170	5,500	4,888
Feb.	8,710	7,560	11,882	....
Mar.	14,943	11,092	10,318	....
Apr.	14,765	9,606	11,967	....
May	7,039	11,483	6,416	....
June	13,434	12,018	9,897	....
July	1,357	13,152	8,341	....
Aug.	8,869	8,646	4,884	....
Sept.	3,903	10,045	5,538	....
Oct.	7,532	8,005	8,053	....
Nov.	6,581	10,817	4,622	....
Dec.	4,354	7,815	5,286	....
Year	102,879	116,409	92,704	.....

Canada's Silver Exports

(Dominion Bureau of Statistics)

(In ores and concentrates)
(Fine Ounces)

	1954	1955	1956
Jan.	547,951	429,704	435,047
Feb.	567,225	457,261	.....
Mar.	849,502	411,597	.....
Apr.	572,059	493,578	.....
May	660,724	445,054	.....
June	682,906	592,238	.....
July	1,210,045	285,350	.....
Aug.	953,379	644,932	.....
Sept.	605,188	636,992	.....
Oct.	612,874	684,301	.....
Nov.	606,274	387,147	.....
Dec.	804,213	405,719	.....
Year	8,672,340	5,873,873	.....

Canada's Copper Exports

(Dominion Bureau of Statistics)

(Ingots, bars, slabs and billets)
(In Tons)

	1953	1954	1955	1956
Jan.	7,668	9,081	11,078	15,981
Feb.	16,411	8,385	12,897	.....
Mar.	10,578	11,671	12,423	.....
Apr.	11,153	11,218	10,321	.....
May	14,726	18,407	10,911	.....
June	15,053	14,877	13,387	.....
July	13,939	15,467	12,674	.....
Aug.	7,272	14,158	13,219	.....
Sept.	8,139	14,069	13,479	.....
Oct.	8,957	11,528	14,208	.....
Nov.	9,062	13,372	14,545	.....
Dec.	9,036	13,897	14,057	.....
Year	131,994	156,130	153,199	.....

Canada's Zinc Output

(Dominion Bureau of Statistics)

(Refined Zinc)
(In Tons)

	1953	1954	1955	1956
Jan.	18,370	17,155	22,028	21,696
Feb.	18,677	15,199	19,865	.....
Mar.	20,693	16,550	22,215	.....
Apr.	20,003	16,249	21,301	.....
May	20,090	16,530	21,599	.....
June	20,589	17,017	20,565	.....
July	21,595	17,917	21,769	.....
Aug.	21,703	18,755	22,029	.....
Sept.	21,157	18,023	20,898	.....
Oct.	21,888	18,871	22,206	.....
Nov.	21,051	19,662	21,398	.....
Dec.	21,899	21,922	21,135	.....
Year	247,707	213,810	257,008	.....

Canada's Silver Output

(Dominion Bureau of Statistics)

(In Ounces)

	1954	1955	1956
Jan.	2,603,593	2,182,386	2,247,955
Feb.	2,068,740	1,960,506	.....
Mar.	2,352,392	2,413,591	.....
Apr.	2,745,615	2,304,287	.....
May	2,564,919	2,235,620	.....
June	2,769,694	2,461,675	.....
July	2,717,859	2,385,654	.....
Aug.	2,840,385	2,480,607	.....
Sept.	2,804,384	2,386,385	.....
Oct.	2,461,823	2,371,890	.....
Nov.	2,823,719	2,088,991	.....
Dec.	2,364,826	2,388,627	.....
Year	31,117,949	27,696,319	.....

Canada's Lead Output

(Dominion Bureau of Statistics)

(Recoverable Lead)*
(In Tons)

	1953	1954	1955	1956
Jan.	19,502	17,716	18,959	15,906
Feb.	16,888	16,863	15,018	.....
Mar.	14,183	17,104	19,113	.....
Apr.	18,640	19,452	17,889	.....
May	16,120	19,953	16,808	.....
June	15,302	18,988	17,800	.....
July	11,969	19,164	16,650	.....
Aug.	13,864	18,237	16,676	.....
Sept.	14,335	17,066	15,972	.....
Oct.	16,327	16,569	13,658	.....
Nov.	19,433	18,365	15,182	.....
Dec.	19,273	19,093	17,857	.....
Year	195,836	219,280	201,583	.....

*New base bullion from Canadian ores plus recoverable lead in ores or concentrates shipped for export.

Canada's Zinc Exports

(Dominion Bureau of Statistics)

(Slabs in Tons)

	1953	1954	1955	1956
Jan.	17,478	16,625	22,181	15,550
Feb.	13,580	11,328	25,556	.....
Mar.	18,307	18,199	20,178	.....
Apr.	17,068	17,926	21,018	.....
May	15,595	13,926	14,820	.....
June	14,919	15,654	19,581	.....
July	10,068	27,582	13,522	.....
Aug.	8,594	14,934	16,581	.....
Sept.	9,423	17,298	11,793	.....
Oct.	11,862	13,064	19,836	.....
Nov.	10,685	16,224	14,164	.....
Dec.	10,809	23,277	14,607	.....
Year	158,388	206,037	213,837	.....

Canada's Nickel Output

(Dominion Bureau of Statistics)

(In Tons)

	1953	1954	1955	1956
Jan.	12,517	12,765	14,387	14,985
Feb.	10,662	11,874	13,375	.....
Mar.	12,268	13,619	15,544	.....
Apr.	11,841	13,015	15,011	.....
May	11,610	13,458	15,352	.....
June	11,687	13,269	14,835	.....
July	11,801	12,901	14,530	.....
Aug.	11,911	13,428	14,825	.....
Sept.	12,031	13,521	13,734	.....
Oct.	12,469	14,323	14,411	.....
Nov.	12,764	14,159	14,290	.....
Dec.	12,122	14,947	14,881	.....
Year	143,693	161,79	175,173	.....

Canadian Zinc Exports

(Dominion Bureau of Statistics; in tons of 2,000 lbs.)

	Jan.–Dec. 1955	Dec. 1955	Jan. 1956
Ore (zinc content)	190,582	16,507	16,954
To U. S.	168,067	11,892	16,954
Belgium	7,487	1,591	....
France	4,613	3,024	....
Norway	2,170	....	....
U. Kingdom	8,245	....	....
Slab zinc	213,837	14,607	15,550
To U. S.	113,308	8,304	9,599
Brazil	55	....	....
Chile	73	....	....
Netherlands	112	....	....
U. Kingdom	95,601	6,282	5,951
Korea	115	....	....
India	3,259	....	....
Iran	165	....	....
Pakistan	1,026	....	....
Other countries	123	21	....
Total Exports:			
Ore & slabs	404,419	31,114	32,504
Zinc scrap, dross, ashes	5,463	233	320
To U. S.	1,206	20	43
Belgium	2,293	....	82
Germany W.	545	85	85
Netherlands	1,260	128	110
Japan	129	....	....
Italy	30	....	....

Canadian Copper Exports

(Dominion Bureau of Statistics; in tons of 2,000 lbs.)

	Jan.–Dec. 1955	Dec. 1955	Jan. 1956
Ore, matte, regulus, etc. (content)	41,564	3,807	3,433
To U. S.	26,883	2,294	1,816
Belgium	400	43	....
Germany W.	1,827	617	....
Norway	11,325	727	1,559
U. Kingdom	1,129	126	58
Ingots, bars, billets, anodes	153,197	14,057	15,981
To U. S.	67,068	7,982	8,310
Brazil	495	....	1
Denmark	168	....	....
France	8,957	1,137	784
Germany W.	937	....	....
Italy	116	....	....
Netherlands	198	....	....
Switzerland	308	....	....
U. Kingdom	69,199	4,931	6,886
Australia	3,994	....	....
India	1,724	....	....
Other countries	33	7	....
Total Exports:			
Crude and Refined	194,761	17,864	19,414
Old & Scrap	18,293	1,001	561
Rods, strips, sheet and tubing	19,161	1,777	1,621

French Metal Exports

	1954 Jan.–Dec.	1955 Jan.–Dec.	1956 Jan.
Copper			
Crude copper for refining (blister, black and cement)	1,179	...	...
Lead			
Ore (gross weight)	374	1,128	7
Pig lead:			
Argentiferous	23	76	...
Non-Argentiferous	14,275	13,740	1,754
Antimonial lead	404	550	22
Zinc			
Slabs, bars, blocks, etc.	1,192	609	...

Copper Imports and Exports by Principal Countries

(A.B.M.S.)

Reported in ingots, slabs, etc.: metric tons except where otherwise noted.

	1955 Nov.	1955 Dec.	1956 Jan.
IMPORTS			
U. S. (blist., s.t.)	22,830	23,841	9,512
(ore, etc., s.t.)	11,438	11,489	7,937
(ref., s.t.)	20,876	20,682	13,508
Belgium†	10,626	...	...
Denmark	100	260	424
France (crude)	821	15	914
(refined)	14,672	17,442	9,086
Italy	10,710	...	...
Germany (W.)	14,517	...	...
Netherlands	2,056	1,629	...
Norway	254	305	...
Sweden	5,563	2,460	5,988
Switzerland	1,345	3,253	2,097
U. K. (l.t.)	31,726	34,962	...
India†† (ref., l.t.)	1,826	1,462	...
Australia†† (blist. & ref., l.t.)	450	...	...
EXPORTS			
U. S. (ore and unref., s.t.)	1,264	258	...
(refined, s.t.)	16,434	14,728	13,301
Canada (ref., s.t.)	14,545	14,057	...
Belgium†	9,927	...	...
Finland‡	201‡‡	121	...
Germany (W.)	4,098	...	...
Norway	730	1,721	...
Sweden	1,322	1,554	1,562
U. K. (l.t.)	2,761	2,004	...
Belg. Congo*	20,383	...	...
No. Rhodesia†† ref. & blist., l.t.)	34,382	26,000	29,381

French Zinc Imports

(A.B.M.S.)

(In metric tons)

	1954 Jan.–Dec.	1955 Jan.–Dec.	1956 Jan.
Ore (gross weight)	241,425	290,133	21,619
Canada	6,753	6,167	5,083
Guatemala	...	999	...
Bolivia	...	920	...
Peru	5,446	35,874	546
Belgium	7,017	3,637	...
Finland	...	2,997	...
Germany W.	4,012	2,637	...
Greece	4,187	6,379	...
Italy	20,434	14,118	821
Norway	484	1,005	...
Spain	49,320	41,644	3,920
Yugoslavia	4,000	30,549	...
Algeria	34,057	48,888	1,500
Fr. Morocco	76,082	73,894	3,806
Tunisia	7,900	10,053	1,521
Belg. Congo	5,000	8,757	...
Australia	16,733	1,615	4,422
Slabs, bars, blocks, etc.	15,794	14,923	1,360
United States	102	...	...
Canada	435	...	...
Mexico	329	...	...
Belgium	12,273	13,480	1,360
Germany W.	50	100	...
Italy	1,180	791	...
Netherlands	331	280	...
Norway	534	...	...
Switzerland	...	5	...
U. Kingdom	155	12	...
Yugoslavia	50	...	...
Algeria	173	209	...
Tunisia	...	1	...
Other British Africa (East Coast)	111	...	...
U. of S. Africa	71	...	...
Rhodesia	...	42	...
Australia	...	3	...

U. K. Copper Exports

(British Bureau of Non-Ferrous Metal Statistics)

(Gross Weight)

	1954 Jan.–Dec.	1955 Jan.–Dec.*	1955 Dec.
Copper unwrought, ingots, blocks, slabs, bars, etc.	20,110	15,897	2,004
Plates, sheets, rods, etc.	22,724	17,516	1,641
Wire (including uninsulated electric wire)	9,340	31,447	4,872
Tubes	5,160	6,657	864
Other copper, worked (incl. pipe fittings)	608	1,498	232
Total	57,942	73,015	9,613

* Revisions in cumulative totals are made in some instances and cannot be allocated monthly.

French Copper Imports

(A.B.M.S.)

	1954 Jan.–Dec.	1955 Jan.–Dec.	1956 Jan.
Crude copper for refining (blister, black & cement)	9,042	6,131	914
Belgium	....	...	102
Belg. Congo	4,136	4,980	812
U. of S. Africa	4,906	1,128	...
Fr. Morocco	...	23	...
Refined	128,709	165,064	9,086
United States	31,650	53,531	3,920
Canada	6,869	8,470	51
Chile	262	150	...
Peru	3,700	277	...
Belgium	34,912	48,026	1,992
Germany W.	3,299	1,906	...
Italy	281	...	...
Norway	202	576	762
Sweden	282	117	...
U. Kingdom	3,688	987	5
Yugoslavia	406	...	...
Turkey	...	95	...
Belg. Congo	36,559	37,019	1,085
U. of S. Africa	376	1,123	...
Other British Africa (East Coast)	4,109	...	...
Rhodesia-Nyassaland	1,590	10,545	1,271
Japan	500	1,598	...
Other countries	24	44	...
Total Imports:			
Crude and refined	137,751	171,195	10,000

Canadian Lead Exports

(Dominion Bureau of Statistics; in tons of 2,000 lbs.)

	Jan.–Dec. 1955	Dec. 1955	Jan. 1956
Ore (lead content)	58,162	5,532	2,496
To U. S.	31,221	2,849	2,496
Belgium	16,522	1,281	....
Germany W.	10,419	1,402	....
Refined Lead	92,703	5,286	4,888
To U. S.	34,287	1,802	1,629
Cuba	1	....	....
Venezuela	85	....	44
Belgium	66	....	....
Norway	56	....	....
U. Kingdom	56,869	3,472	3,192
Japan	1,274	....	23
Other countries	65	12	....
Total Exports:			
Ore and refined	150,865	10,818	7,384
Pipe & tubing	22	1	2
Lead scrap	627	29	....

Nonferrous Castings

MONTHLY SHIPMENTS, BY TYPE OF METAL
(Bureau of Census — Thousands of Pounds)

	Aluminum	Copper	Magnesium	Zinc	Lead Die
1951 Total	515,131	1,197,443	30,825	487,996	25,936
1952 Total	518,979	1,009,910	34,857	408,353	20,941
1953 Total	658,022	990,496	34,517	521,253	20,444
1954					
July	39,636	56,380	1,924	28,306	1,391
August	42,429	68,891	2,157	34,639	1,726
September	46,249	68,267	2,059	36,594	1,625
October	53,901	70,276	2,092	39,072	1,784
November	55,224	70,020	2,161	48,437	1,355
December	62,752	72,421	2,287	50,177	1,563
Total	607,764	834,557	25,572	474,741	18,396
1955					
January	64,414	72,233	2,305	58,586	1,734
February	66,869	75,253	2,160	58,585	1,571
March	78,958	92,149	2,572	71,811	1,537
April	73,049	84,183	2,633	71,595	1,614
May	71,691	85,008	2,399	63,735	1,530
June	68,473	90,476	2,367	66,569	2,045
July	55,033	65,816	1,920	47,928	1,684
August	64,864	87,206	2,176	62,677	1,904
September	67,170	89,600	2,478	62,030	1,924
October	72,197	91,192	2,302	71,689	1,789
November	75,065	90,345	2,325	75,099	1,896
December	75,275	88,287	2,255	70,950	1,817
Total	833,058	1,011,748	27,892	781,254	21,045

*Computed on new basis as of October, 1952.

Copper Castings Shipments

BY TYPE OF CASTING
(Bureau of Census) (Thousands of Pounds)

	Total	Sand	Permanent Mold	Die	All Other
1951 Total	1,197,443	1,075,437	69,883	12,516	39,607
1952 Total	1,009,910	910,862	63,865	8,259	26,924
1953 Total	990,496	888,369	61,316	10,077	30,734
1954					
July	56,380	51,070	3,073	393	1,844
August	68,891	63,389	3,547	429	1,496
September	68,267	62,152	3,637	548	1,930
October	70,276	63,855	3,619	521	2,281
November	70,020	63,065	4,089	507	2,359
December	72,421	65,159	4,346	482	2,434
Total	834,557	751,804	48,849	6,480	27,394
1955					
January	72,233	64,540	4,678	591	2,424
February	75,253	67,768	4,598	641	2,246
March	92,149	83,149	5,649	742	2,609
April	84,183	75,903	5,152	654	2,474
May	85,008	76,064	5,513	764	2,667
June	90,476	80,869	5,840	739	3,028
July	65,816	59,138	3,998	691	1,989
August	87,206	77,721	5,322	844	2,413
September	89,600	80,481	5,603	692	2,824
October	91,192	82,958	4,513	727	2,994
November	90,345	80,934	5,807	743	2,861
December	88,287	78,327	6,368	713	2,879
Total	1,011,748	907,852	63,041	8,541	31,408

*Computed on new basis as of October, 1952.

Nickel Averages

Electro, cathode sheets, 99.00%, f.o.b. refinery, duty included
(Cents per pound)

	1953	1954	1955	1956
Jan.	58.62	60.00	64.50	64.50
Feb.	60.00	60.00	64.50	64.50
Mar.	60.00	60.00	64.50	64.50
Apr.	60.00	60.00	64.50	....
May	60.00	60.00	64.50	....
June	60.00	60.00	64.50	....
July	60.00	60.00	64.50	....
Aug.	60.00	60.00	64.50	....
Sept.	60.00	60.00	64.50	....
Oct.	60.00	60.00	64.50	....
Nov.	60.00	60.98	64.50	....
Dec.	60.00	64.50	64.50	....
Av.	59.885	60.46	64.50	....

Platinum Averages

N. Y. MONTHLY QUOTATIONS
(Dollars per Troy Ounce)

	1953	1954	1955	1956
Jan.	91.50	91.40	81.00	106.30
Feb.	91.50	91.00	78.16	104.34
Mar.	91.50	87.88	78.00	104.23
Apr.	91.50	85.50	77.94	....
May	91.50	85.50	77.50	....
June	92.81	85.50	78.33	....
July	94.00	85.50	81.78	....
Aug.	94.00	85.50	84.59	....
Sept.	92.50	85.50	91.96	....
Oct.	92.50	83.62	94.60	....
Nov.	92.50	81.07	103.11	....
Dec.	92.15	80.64	106.58	....
Av.	92.496	85.72	86.12	....

Prompt Tin Prices

(Straits, Open Market, N. Y.)
Monthly Average Prices
(Cents per pound)

	1953	1954	1955	1956
Jan.	121.50	84.84	87.628	104.768
Feb.	121.50	85.04	90.75	100.586
Mar.	121.415	91.24	91.065	100.524
Apr.	101.07	96.238	91.41	....
May	97.387	93.51	91.38	....
June	92.933	94.24	93.64	....
July	81.826	96.55	96.825	....
Aug.	80.69	93.381	96.456	....
Sept.	82.275	93.536	96.256	....
Oct.	80.897	93.00	96.075	....
Nov.	83.26	91.099	97.882	....
Dec.	84.693	88.571	107.75	....
Av.	95.787	91.77	94.73	....

Monthly Tin Production at Longhorn Smelter

(From Concentrates)

(In tons of 2,240 pounds)

	1953	1954	1955	1956
Jan.	4,000	2,700	2,402	1,754
Feb.	3,400	3,008	2,505	1,704
Mar.	3,850	3,559	2,353	....
Apr.	3,750	3,006	2,103	....
May	3,100	2,054	1,604	....
June	3,000	1,205	851	....
July	3,000	NIL	950	....
Aug.	2,600	2,002	1,749	....
Sept.	2,700	2,404	1,751	....
Oct.	2,751	2,404	1,803	....
Nov.	2,750	2,404	1,803	....
Dec.	2,750	2,404	2,453	....
Total	37,651	27,150	22,327	....

Quicksilver Averages

N. Y. Monthly Averages
Virgin, Dollars per 76-lb. Flask

	1953	1954	1955	1956
Jan.	214.88	189.60	324.68	277.88
Feb.	207.37	190.00	324.68	270.29
Mar.	199.92	201.63	322.61	261.40
Apr.	197.90	221.36	318.14	.....
May	196.50	251.20	306.62	.....
June	193.42	273.46	286.98	.....
July	192.21	287.40	268.22	.....
Aug.	190.42	290.71	255.18	.....
Sept.	187.04	314.08	263.70	.....
Oct.	184.62	329.50	279.02	.....
Nov.	186.00	321.17	282.50	.....
Dec.	188.38	319.96	282.27	.....
Av.	194.89	265.84	292.90	.....

Primary Aluminum Output, Shipments and Stocks

(U. S. Department of Interior)

	Stocks beginning of month short tons	Production short tons	Sold or Used Short tons	Sold or Used Value f. o. b. plant	Stocks end of month short tons
1954					
November	35,152	121,252	128,875	53,113,532	27,529
December	27,529	127,035	133,420	55,035,578	21,144
1955					
January	21,144	128,203	129,306	$53,466,480	20,041
February	20,041	116,236	121,819	51,144,168	14,458
March	14,458	130,272	132,760	57,270,040	11,970
April	11,970	126,394	124,415	51,646,568	13,949
May	13,949	131,128	133,025	57,605,872	12,052
June	12,052	127,634	127,056	55,009,348	12,630
July	12,630	132,669	128,961	55,822,814	16,338
August	16,338	133,551	136,472	59,965,645	13,417
September	13,417	130,606	134,125	60,205,054	9,898
October	9,898	134,655	128,116	57,924,207	16,437
November	16,437	133,689	135,953	61,464,364	14,173
December	14,173	140,748	139,901	63,319,738	15,020
1956					
January	15,020	140,394	135,598	$61,362,549	19,816

Aluminum Wrought Products

PRODUCERS' MONTHLY NET SHIPMENTS

(Bureau of Census — Thousands of Pounds)

	Total	Plate, Sheet, & Strip	Rolled Structural Shapes, Rod, Bar & Wire	Extruded Shapes Tube Blooms & Tubing	Powder, Flake, & Paste
1952 Total	1,924,750	1,085,699	443,546	347,542	47,963
1953 Total	2,286,865	1,368,165	422,946	451,922	44,732
1954					
October	180,359	100,787	26,954	48,878	3,731
November	181,822	103,778	26,465	48,483	3,096
December	195,595	108,656	30,269	53,565	3,005
Total	2,088,439	1,165,090	357,229	518,070	46,255
1955					
January	206,175	114,040	28,193	54,588	3,465
February	205,198	112,033	26,559	61,920	4,716
March	234,730	128,432	31,051	71,981	3,266
April	227,939	123,293	29,835	72,017	2,794
May	234,309	125,176	30,979	75,371	2,813
June	255,701	136,420	35,306	74,792	3,035
July	210,222	113,305	27,070	62,918	2,379
August	250,036	141,400	29,413	67,904	3,039
September	244,135	134,240	32,973	67,407	2,926
October	248,806	138,328	30,554	71,456	2,926
November	245,256	137,109	31,656	67,798	2,658
December	242,993	138,592	31,802	64,159	1,837
Total	2,805,500	1,542,368	365,391	812,311	35,854
1956					
January	251,772	142,049	34,608	67,499	2,118
February	240,999	134,077	33,727	65,261	1,901

Aluminum Castings Shipments

(Bureau of Census)

BY TYPE OF CASTING

(Thousands of Pounds)

	Total	Permanent Mold: Sand	Permanent Mold: Die	All Other
1951 Total	515,131	193,378	160,011	151,465	10,277
1952 Total	518,979	194,616	146,883	169,732	7,748
1953 Total	658,022	214,553	200,025	239,330	4,114
1954					
October	53,901	12,765	19,238	21,245	653
November	55,224	12,934	20,396	21,296	598
December	64,054	13,753	23,629	26,017	646
1955					
January	64,414	13,358	23,679	26,819	558
February	66,869	13,579	24,319	28,234	737
March	78,958	16,019	29,029	33,229	682
April	73,049	14,041	28,028	30,208	772
May	71,691	14,235	25,597	31,243	616
June	68,473	14,920	24,682	27,939	932
July	55,083	11,716	21,006	21,656	655
August	64,864	14,916	22,267	27,004	576
September	67,170	14,870	23,075	28,532	693
October	72,197	14,485	25,135	31,741	836
November	75,065	14,327	26,267	33,852	619
December	75,275	15,291	25,031	34,347	606
1955 Total	833,058	171,757	298,115	354,804	8,282

*Computed on new basis as of October, 1952.

Virgin Aluminum

Virgin 99% Delivered Monthly Average Prices

(Cents per pound)

	1953	1954	1955	1956
Jan.	20.173	21.50	22.90	24.40
Feb.	20.50	21.50	23.20	24.40
Mar.	20.50	21.50	23.20	24.60
Apr.	20:50	21.50	23.20	....
May	20:50	21.50	23.20	....
June	20:50	21.50	23.20	....
July	20.962	21.50	23.20	....
Aug.	21.50	22.12	24.26	....
Sept.	21.50	22.20	24.40	....
Oct.	21.50	22.20	24.40	....
Nov.	21.50	22.20	24.40	....
Dec.	21.50	22.20	24.40	....
Av.	20.928	21.785	23.655	....

Magnesium Wrought Products Shipments

(Bureau of Census)

(Thousands of Pounds)

	1953	1954	1955	1956
Jan. ..	1,313	972	1,776	2,118
Feb. ..	1,601	1,136	1,648	1,901
Mar. ..	1,601	1,136	1,947	....
Apr. ..	1,708	892	1,756	....
May ..	1,699	1,129	1,836	....
June ..	1,192	1,312	1,686	....
July ..	1,589	1,032	1,437	....
Aug. ..	1,433	1,111	1,742	....
Sept. .	1,254	1,183	2,159	....
Oct. ..	1,409	1,002	1,667	....
Nov. ..	1,314	1,243	1,955	....
Dec. ..	919	1,673	1,577	....
Total	16,885	13,743	21,186	.....

Cadmium Averages

N. Y. Monthly Averages

Cents per lb. in ton lots

	1953	1954	1955	1956
Jan.	193.00	200.00	170.00	170.00
Feb.	200.00	170.00	170.00	170.00
Mar.	200.00	170.00	170.00	170.00
Apr.	200.00	170.00	170.00	.....
May	200.00	170.00	170.00	.....
June	200.00	170.00	170.00	.....
July	200.00	170.00	170.00	.....
Aug.	200.00	170.00	170.00	.....
Sept.	200.00	170.00	170.00	.....
Oct.	200.00	170.00	170.00	.....
Nov.	200.00	170.00	170.00	.....
Dec.	200.00	170.00	170.00	.....
Av.	199.44	172.50	170.00	.....

Steel Ingot Production

(American Iron and Steel Institute)

Period	Estimated Production — All Companies OPEN HEARTH Net tons	OPEN HEARTH Per cent of capacity	BESSEMER Net tons	BESSEMER Per cent of capacity	ELECTRIC Net tons	ELECTRIC Per cent of capacity	TOTAL Net tons	TOTAL Per cent of capacity	Calculated weekly production, all companies (net tons)
1952 Total	82,846,429	87.2	3,523,677	65.5	6,797,923	82.6	93,168,039	85.8	1,782,097
1953 Total	100,473,823	97.9	3,855,705	83.2	7,280,191	71.1	111,609,719	94.9	2,140,578
1954									
November	7,307,151	81.4	231,191	58.7	551,085	64.1	8,089,427	79.1	1,885,647
December	7,530,204	81.4	231,196	57.0	525,743	59.4	8,287,073	78.6	1,874,903
Total	80,327,494	73.6	2,548,104	53.2	5,436,054	52.0	88,311,652	71.0	1,693,741
1955									
January	8,054,345	86.0	199,229	49.0	584,162	63.6	8,837,736	82.7	1,994,974
February	7,734,884	91.5	197,091	53.7	564,959	68.1	8,496,939	88.9	2,124,233
March	9,060,026	96.7	255,493	62.8	666,235	72.6	9,981,754	93.4	2,253,218
April	8,858,549	97.7	275,069	69.8	681,477	76.6	9,815,095	94.8	2,287,901
May	9,307,291	99.4	305,347	75.1	715,678	77.9	10,328,316	96.6	2,331,448
June	8,764,430	96.6	283,544	72.0	698,493	78.6	9,746,467	94.1	2,271,904
July	8,232,535	88.1	268,348	66.1	600,063	65.5	9,100,946	85.3	2,059,038
August	8,600,612	91.8	298,872	73.5	694,961	75.7	9,594,545	89.7	2,165,812
September	8,829,266	97.6	307,171	78.2	745,888	84.1	9,882,325	95.7	2,308,954
October	9,369,704	100.0	330,150	81.2	801,196	87.3	10,501,050	98.2	2,370,440
November	9,141,244	100.8	306,674	77.9	799,480	89.9	10,247,398	99.0	2,388,671
December	9,390,000	100.5	292,000	72.0	786,000	85.8	10,468,000	98.1	2,368,000
Total	105,342,886	95.6	3,319,088	69.3	8,338,592	77.2	117,000,566	93.0	2,243,969
1956									
January	9,676,151	101.4	323,235	79.5	828,845	86.6	10,828,231	99.3	2,444,296
February	9,043,064	101.3	296,543	78.0	779,388	87.1	10,118,995	99.2	2,444,202
March	9,778,000	102.5	310,000	76.2	833,000	87.1	10,921,000	100.2	2,465,000

Blast Furnace Output

American Iron and Steel Institute)

	net tons Pig Iron	Ferro-manganese & Spiegel	Total	% Capacity
1947				
Ttl. Yr.	58,507,169	702,561	59,209,730	90.1
1948				
Ttl. Yr.	60,135,941	712,899	60,848,840	90.2
1949				
Ttl. Yr.	53,613,779	592,564	54,206,343	76.9
1950				
Ttl. Yr.	64,810,272	673,896	65,484,168	91.5
1951				
Ttl. Yr.	70,487,380	745,381	71,232,761	98.8
1952				
Ttl. Yr.	61,528,665	629,926	62,158,591	84.2
1953				
Nov.	5,999,704	62,896	6,062,600	92.8
Dec.	5,712,938	65,902	5,778,840	85.9
Total	74,987,721	855,038	75,842,759	96.5
1954				
Jan.	5,515,689	63,824	5,579,513	80.1
Feb.	4,764,613	45,941	4,810,554	76.5
Mar.	4,907,147	52,156	4,959,303	71.2
Apr.	4,449,289	53,277	4,502,566	66.7
May	4,572,252	52,187	4,624,439	66.4
June	4,683,629	40,521	4,724,150	70.0
July	4,590,076	36,108	4,626,184	66.6
Aug.	4,529,291	37,744	4,567,035	71.0
Sept.	4,417,888	43,934	4,461,822	66.3
Oct.	4,937,436	46,244	4,983,680	71.5
Nov.	5,204,446	52,454	5,256,900	77.9
Dec.	5,526,720	59,793	5,586,513	80.4
Total	58,119,382	568,735	58,688,117	71.6
1955				
Jan.	5,729,404	55,249	5,784,653	81.1
Feb.	5,394,585	48,182	5,442,767	84.5
Mar.	6,406,902	57,049	6,463,951	90.6
Apr.	6,329,927	54,712	6,384,639	92.4
May	6,763,236	51,699	6,804,935	95.4
June	6,495,050	48,735	6,543,878	94.7
July	6,329,393	61,166	6,390,559	89.8
Aug.	6,579,580	71,902	6,601,482	92.5
Sept.	6,653,578	49,788	6,703,366	97.3
Oct.	6,905,280	59,993	6,965,273	97.6
Nov.	6,636,649	62,341	6,698,990	97.0
Dec.	6,887,667	65,849	6,953,516	97.7
Total	77,114,073	868,758	77,800,831	92.7
1956				
Jan.	6,985,945	63,619	7,049,564	97.1
Feb.	6,539,199	63,618	6,602,817	97.2

Steel Castings Shipments

(Bureau of Census)

	(Short Tons) Total	For Sale	For Own Use
1950	1,461,667	929,192	374,217
1951	2,101,604	1,507,413	594,191
1952	1,925,116	1,476,352	448,767
1953			
Nov.	114,088	84,945	29,143
Dec.	123,281	91,017	32,264
Total	1,829,277	1,290,016	431,330
1954			
Jan.	122,758	93,577	29,181
Feb.	116,520	88,699	27,821
Mar.	122,310	92,271	30,039
Apr.	105,788	78,754	27,034
May	94,610	70,596	24,014
June	100,022	72,881	27,141
July	75,848	53,207	22,641
Aug.	89,590	66,792	22,798
Sept.	88,359	64,722	23,637
Oct.	87,085	64,004	23,081
Nov.	87,659	64,812	22,847
Dec.	93,547	69,843	23,704
Total	1,184,096	880,158	303,938
1955			
Jan.	98,238	75,044	23,194
Feb.	106,430	80,729	25,701
Mar.	127,460	98,926	28,534
Apr.	120,053	92,237	27,816
May	122,465	92,713	29,752
June	133,887	102,457	31,430
July	97,875	71,170	26,705
Aug.	126,406	96,290	30,116
Sept.	140,843	107,622	33,221
Oct.	145,674	110,409	35,265
Nov.	152,381	116,908	35,473
Dec.	158,982	122,201	36,781
Total	1,530,694	1,166,706	363,988
1956			
Jan.	158,618	123,343	35,275

GALVANIZED SHEET SHIPMENTS

(American Iron & Steel Institute)

(Net Tons)

	1953	1954	1955	1956
Jan.	201,472	169,036	211,101	269,464
Feb.	183,503	167,433	199,408	272,997
Mar.	204,995	180,198	238,649	.....
Apr.	196,656	203,312	239,001	.....
May	189,765	201,671	235,962	.....
June	184,862	200,456	246,940	.....
July	185,896	214,349	205,211	.....
Aug.	187,741	207,113	241,863	.....
Sept.	194,257	209,765	269,020	.....
Oct.	208,705	209,498	260,010	.....
Nov.	177,391	195,190	255,692	.....
Dec.	176,375	205,561	261,640	.....
Total	2,290,868	2,362,632	2,864,497	.....

SHIPMENTS of TIN-TERNE PLATE

(American Iron & Steel Institute)

(Net Tons)

	Hot Dipped 1955	Hot Dipped 1956	Electrolytic 1955	Electrolytic 1956
Jan.	82,874	81,034	335,682	402,627
Feb.	88,189	77,877	344,467	404,193
Mar.	94,434	.....	419,574	.....
Apr.	89,492	.....	441,194	.....
May	125,579	.....	481,805	.....
June	130,603	.....	520,305	.....
July	76,473	.....	291,405	.....
Aug.	111,482	.....	441,201	.....
Sept.	116,295	.....	471,624	.....
Oct.	60,355	.....	249,790	.....
Nov.	59,269	.....	240,503	.....
Dec.	65,363	.....	263,087	.....
Total	1,100,762	.....	4,503,637	.....

Steel Ingot Operations

(Percentage of Capacity as Reported by American Iron & Steel Institute)

Week Beginning	1953	1954	1955	1956
Jan. 2	98.2	75.4	81.2	97.6
Jan. 9	99.3	74.3	83.2	98.6
Jan. 16	99.7	74.1	83.2	99.0
Jan. 23	99.4	75.6	85.0	100.4
Jan. 30	97.7	74.4	85.4	99.3
Feb. 6	99.7	74,4	86.8	99.1
Feb. 13	99.1	74.6	89.1	98.8
Feb. 20	99.4	73.6	90.8	98.8
Feb. 27	100.3	70.7	91.9	99.9
Mar. 5	101.3	69.3	92.9	100.0
Mar. 12	101.5	67.6	94.2	100.6
Mar. 19	103.1	68.1	93.7	99.5
Mar. 26	97.1	69.1	94.4	99.6
Apr. 2	98.9	68.0	95.3	97.7
Apr. 9	98.8	68.0	94.6	98.1
Apr. 16	101.0	68.6	94.6	...
Apr. 23	100.3	68.7	95.6	...
Apr. 30	100.2	69.4	96.6	...
May 7	100.3	70.9	97.2	...
May 14	99.8	71.8	96.9	...
May 21	100.3	71.2	96.4	...
May 28	99.6	70.2	95.8	...
June 4	97.9	73.2	94.7	...
June 11	96.8	72.3	96.0	...
June 18	96.8	72.1	95.0	...
June 25	91.8	65.8	71.1	...
July 2	92.8	60.0	85.9	...
July 9	94.7	64.3	91.2	...
July 16	94.4	65.3	91.0	...
July 23	92.6	64.2	90.7	...
July 30	94.0	64.0	86.9	...
Aug. 6	95.2	64.0	89.4	...
Aug. 13	95.9	61.8	90.2	...
Aug. 20	93.4	63.5	90.6	...
Aug. 27	90.5	64.0	93.4	...
Sept. 3	89.2	63.0	93.8	...
Sept. 10	91.4	66.3	95.7	...
Sept. 17	95.1	68.7	96.1	...
Sept. 24	95.3	70.4	97.0	...
Oct. 1	95.2	71.0	96.7	...
Oct. 8	96.3	72.8	96.5	...
Oct. 15	95.0	73.6	98.9	...
Oct. 22	94.6	74.5	100.0	...
Oct. 29	93.0	76.4	99.4	...
Nov. 5	92.3	77.2	99.6	...
Nov. 12	90.7	79.3	99.2	...
Nov. 19	86.8	80.3	100.1	...
Nov. 26	87.5	81.4	97.6	...
Dec. 3	86.7	82.5	100.1	...
Dec. 10	84.3	81.5	100.3	...
Dec. 17	64.1	72.4	96.9	...
Dec. 24	75.7	77.6	95.7	...
Dec. 31	...	...	...	...

copper

Electrolytic NEC* CCC*

zinc

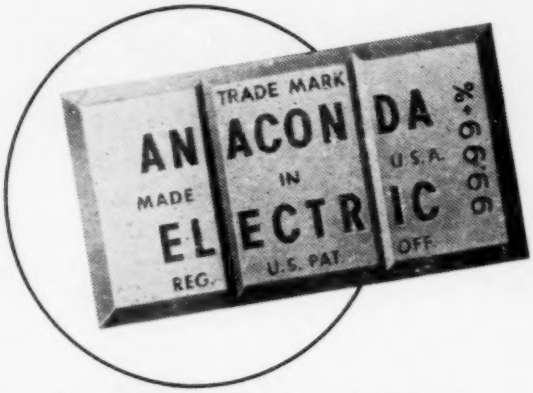
99.99+% Electric*
High Grade Electrolytic

lead

Common Desilverized ILR*

aluminum

Pig • Ingot



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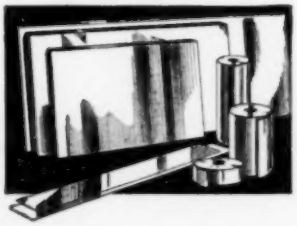

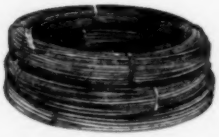

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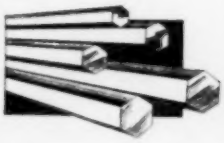

DISTRICT SALES OFFICES

Ansonia, Conn.
Atlanta 3, Ga.
Buffalo 5, N. Y.
Cambridge 42, Mass.
Cedar Rapids, Iowa
Charlotte 2, N. C.
*Chicago 39, Ill.
Cincinnati 2, Ohio
*Cleveland 14, Ohio
Columbus 15, Ohio
*Dallas 25, Texas
Denver 2, Colo.
Detroit 31, Mich.
Houston 2, Texas
Kenosha, Wis.
Los Angeles 17, Calif.
Miami 30, Fla.
*Milwaukee 4, Wis.
Minneapolis 2, Minn.
Newark 2, N. J.
New York 16, N. Y.
*Philadelphia 22, Pa.
Pittsburgh 19, Pa.
*Providence 3, R. I.
Rochester 4, N. Y.
St. Louis 3, Mo.
San Francisco 4, Calif.
Seattle 1, Wash.
Syracuse 2, N. Y.
Torrington, Conn.
Washington 5, D. C.
Waterbury 20, Conn.
General Offices
Waterbury 20, Conn.
In Canada: Anaconda American Brass Limited General Offices
New Toronto, Ontario
Montreal Office
909 Dominion Square Building
*Warehouses

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